

Land Resources for Education Outdoors III

CA20N
NR
-78216




Ontario

Ministry of
Natural
Resources

Ministry of
Education

7 1 1140



Digitized by the Internet Archive
in 2022 with funding from
University of Toronto

<https://archive.org/details/31761115483299>

CA20N
NR
-78210

Land Resources for Education Outdoors III



Ontario

Ministry of
Natural
Resources

Hon. Frank S. Miller
Minister

Dr. J.K. Reynolds
Deputy Minister

Ministry of
Education

Hon. Thomas L. Wells
Minister

G.H. Waldrum
Deputy Minister

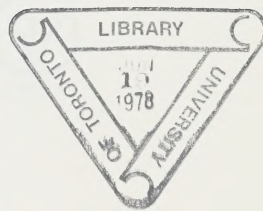


Table of Contents

ii	Foreword
1	Introduction
	Inventory
1	Dundas, Stormont and Glengarry United Counties
5	Part of Durham Region
10	Frontenac County
16	Hastings County
23	Lanark County
28	Lennox and Addington Counties
31	Northumberland County
35	Ottawa - Carleton Region
41	Peterborough County
51	Prescott and Russell United Counties
53	Prince Edward County
57	Renfrew County
60	The United Counties of Leeds and Grenville
67	Contact Points for Schools
70	Appendix
70	Bibliography
In Cover Pocket	Conservation Areas Guide
	Provincial Parks Map

Foreword

The accompanying materials were assembled through the joint efforts of the Ontario Ministry of Natural Resources and the Ontario Ministry of Education. They are intended to provide information and assistance to boards of education as they evolve policies and programs in environmental studies and education outdoors. In preparation of these materials, it was assumed that in many respects boards of education and conservation authorities or managers of crown lands share two goals in common: to develop among members of the public a high level of knowledge about the natural environment and a high level of commitment to the wise use of land. The information is also intended to facilitate agreements between school boards and appropriate authorities, as permitted under The Education Act.

Resources for Education Outdoors comprises a number of maps, booklets, information sheets, and inventories that help to identify areas within the province that have potential for education programs outdoors either on a daily basis or by longer term arrangements between boards and the agencies responsible for the management of the lands.

In the latter situation, where mutually acceptable arrangements may be desirable, boards and the managers of lands may wish to enter into agreements concerning access to lands for educational purposes and the erection and operation of facilities, with due regard to the Acts and Regulations applying to each party.¹

Since each party has different responsibilities, the specific role of each can be clearly defined in such agreements.

¹ (a) Section 20, *The Conservation Authorities Act*

(b) Section 170, *The Education Act*, 1974

The Role of Boards of Education

Boards of education in Ontario are responsible for establishing policies and developing programs that meet the educational needs and interests of students within their jurisdictions. The areas served by boards in Ontario represent a wide variety of cultural and physical environments. Among others, these include large cities, farmlands, newly created subdivisions of suburbia, and the resource-based settlements of the Canadian Shield. In view of this diversity, no single program will be appropriate for all students nor will every board have access to sites of similar educational potential. Nevertheless, every board can make optimum use of those areas and sites to which it may gain access for education in the outdoors.

To accomplish this, each board may wish to develop a statement of aims and objectives for those portions of the school program that stand to benefit most from being conducted outside the school building. Policy and procedures for outdoor education programs would evolve from this statement. Where such a statement is available and known to schools, principals and staffs will be able to plan worthwhile learning experiences for students in the

confidence that such activities are consistent with board policies. Board officials may find the statement useful in planning in-service training programs that encourage teachers to make Environmental Studies an integral part of the educational experience of students.

Additional steps may be taken to encourage individual schools or teachers to broaden their program through the use of out-of-classroom experiences for students. Among these is the development of an inventory of useful information on the human, physical, or financial resources available to teachers. Such an inventory may be in print form and distributed to all the schools or it may be available from a central location to which teachers have ready access. Examples of useful information include lists of sites with a description of their features, names of contact persons, suggestions for the organization of activities for students of different ages, maps, diagrams or air photos showing the potential of each site, a bibliography of useful references, and the names of organizations from whom information and assistance may be obtained. An important aspect of every program should be the development of safety consciousness among students.

The Role of Land Managers

The management of lands identified in this brochure of information is the responsibility of conservation authorities or of districts of the Ministry of Natural Resources. Such management involves the planning and operation of programs designed to ensure that the best interests of the public are being met. As a result, these agencies possess a wealth of information about the lands under their care, the potential of these lands for educational use, and the pressure of use that lands can sustain without damage. The managers are, therefore, able to identify appropriate lands for boards of education and, where desirable, to enter into agreements allowing the boards access to the lands for the conduct of educational programs. Where mutually acceptable agreements are reached, the board may establish an educational program while the managing authority continues to manage the lands.

In many cases, it may be possible for managing agencies to provide assistance and advice in the development of the educational program. The historical, scientific, and technical data accumulated by managers could be important sources of enrichment for the school programs, as could knowledge of the management theories being employed. Also, numerous other groups not directly involved in the management of the land may have produced useful information that has been collected by the managers. These would include local naturalists and naturalist groups, libraries, historical societies, and so forth. Often it is possible for schools to identify a variety of source materials of particular local interest in the form of government and non-government reports, films, field guides, diaries, and accounts. Much of this information can enrich students' understandings of the areas under study.

Introduction

The purpose of this report is to provide schools with an inventory of areas owned and/or managed by the Ontario government for use in their outdoor education programs. Only the Eastern Ontario and Ottawa Valley Regions within the Ministry of Education comprising the Counties of Frontenac, Hastings, Lanark, Lennox and Addington, Northumberland, Peterborough, Prince Edward and Renfrew; the Regions of Durham and Ottawa-Carleton; and the United Counties of Dundas, Stormont and Glengarry, Prescott and Russell, and Leeds and Grenville are covered. All Provincial areas within a County are listed along with their locations and features. Areas listed may include the following:

Conservation Authority Lands

Conservation Areas

Developed

Undeveloped

Conservation Authority Agreement Forests

Water Control Areas

Reservoir Lands

Flood Plain Lands

Control Lands

County/Regional Agreement Forests

Crown Lands

Forest Stations and Nurseries

Provincial Fish and Wildlife Management Areas

Provincial Historical Areas

Provincial Parks and Park Reserves

Their features may include size, geological, topographical and hydrological aspects, vegetation associations, wildlife and fisheries details, available conservation demonstrations such as erosion control, forest management or wildlife and fisheries management, nature interpretation programs and educational facilities.

Even though all areas are government owned and/or managed it is advisable to contact the appropriate agency - Conservation Authority or Ministry of Natural Resources District Office - in order to obtain permission for entrance and use possible staff assistance and up-to-date information on possible entrance fees, area development and support facilities. Therefore, a list of contact points is included with the inventory.

Finally, a series of descriptive leaflets on some of the areas within the Region is enclosed and can be found in the binder pockets. This also includes the Conservation Areas Guide with a revision section (found after the section on contact points), Provincial Parks Map, Provincial Wildlife Management Areas Booklet and Provincial Fishing Areas Leaflet.

Dundas, Stormont and Glengarry United Counties

I Conservation Authority Lands

(i) CONSERVATION AREAS (Developed)

Beaurette Conservation Area (Raisin Region Conservation Authority)

Location: From Martintown, proceed east on County Road 18 for three miles, turn north on County Road 27 for one mile, turn east and proceed for one mile on Township Road 7.

Features: 50 acres of land, with approximately 30 being open scrub land. 10,000 trees have been planted on the front 15 acres.

Nature Trails: Interpretive nature trails lead through varied brushland, swamps and over creeks for approximately 1.5 miles. These may be used for cross-country skiing, etc. in the winter.

Nature Interpretation Program: None is available, but a beaver dam may be of interest.

(iii) CONSERVATION AREAS (Undeveloped)

Gray's Creek Conservation Area (Raisin Region Conservation Authority)

Location: From Cornwall, take Highway 2 east to Boundary Road and then north for 0.25 mile. The area is on the east side of the road.

Features: 107 acres of rolling to hilly land with hawthorns, underbrush and a few mature trees. A creek runs through the south and west side of the area. Public garden plots. Marina facilities are being developed in this area, with access from the St. Lawrence River via Gray's Creek.

Nature Trails: None have been laid out, but paths were cut in 1976.

Nature Interpretation Program: None is available. The area is fairly good for wildlife and suited to stream studies.

(iii) CONSERVATION AUTHORITY AGREEMENT FORESTS

The Raisin Region Authority forest properties lie in the St. Lawrence Forest ecological section where the four major soil types of importance are: the Farmington loam, Morrisburg clay loam, Eamer loam and muck soil. The total area of agreement forest is approximately 340 acres of which 234 are productive, 53 acres non-productive and 45 acres water. Conifers and hardwoods are of equal importance, with jack pine and white spruce being the major species in the softwoods and poplar in the hardwoods. Other minor hardwood species are white birch, white ash and red maple. The minor coniferous species are eastern white cedar, white pine and balsam fir. Approximately 47 % of the production forest area is in plantations; the remaining area is occupied by natural stands. The drainage of this area is

poor, leaving a high water table. This area was settled in the 1780s, the first sawmill being built in 1788 in Matilda Township in Dundas County; but by the turn of the century, the forest, required to sustain the large mills, was exhausted and the industry moved further north along the Ottawa River.

Location: Kenyon Township, Concession 2, south half Lot 9, 100 acres, and Concession 1, the north of Lot 10, 40 acres (140 acres of Loch Garry lands).

Roxborough Township, Concession 4, west half of Lot 2, 100 acres (McNaughton property), and Concession 4, east half of Lot 2, 100 acres (the Hough property).

All the above properties are managed by the Cornwall District of the Ministry of Natural Resources.

South Nation River Authority Agreement Forest. This accounts for the remainder of agreement forest for the united counties Stormont, Dundas and Glengarry. The total of 2,570 acres are mixed in with Ministry forest (Cornwall District). The breakdown by township is as follows:

Finch Township	155 acres
Kenyon Township	600 acres
Matilda Township	700 acres
Mountain Township	50 acres
Osnabrock Township	100 acres
Roxborough Township	470 acres
Winchester Township	100 acres

For further details on this forest, see Prescott and Russell United Counties.

(iv) WATER CONTROL AREAS

Loch Garry Lands (Raisin Region Conservation Authority)

Location: Kenyon Township, Concession 2, Lot 13, part Lot 14, part Lot 15, part Lot 16, part Lot 17, totalling 723 acres — under lease from the Town of Alexandria. The Garry dam was built in 1966 to conserve water and regulate flow on the Garry River and to help maintain springs and wells and provide recreational facilities. The 723 acres also include swamp and highland with evergreen and hardwood bush.

Long Sault Water Diversion (Raisin Region Conservation Authority)

Location: On old Highway 2 at Long Sault, north of the marina. The purpose of the water diversion is to maintain water level in the south branch of the Raisin River. The diversion begins adjacent to the Ontario Hydro property (Long Sault Dam). The road acts as a dyke and the channel was straightened and deepened along an old drainage ditch. The water comes from the St. Lawrence River and there is a monitoring station measuring the flow in cubic feet per second. Maximum flow allowed is 25 cubic feet per second.

(v) RESERVOIR LANDS

Chesterville Dam Site (South Nation River Conservation Authority)

Location: In the Village of Chesterville. The South Nation River Conservation Authority owns lands on the south side of the river. The north side of the river is next to Town Road.

1) Casselman Dam (Weir)

Built by the South Nation River Conservation Authority in 1959. The Authority owns land on both sides of the river — there is a small roadside picnic area with boat launching ramp and latrine facilities.

2) Russell Reservoir

The South Nation River Conservation Authority owns land on both sides of the river — the north side is leased to the Municipality for park area with a swimming pool; the south side is reforested.

Crysler Dam (South Nation River Conservation Authority)

Location: Finch Township in the Village of Cryssler.

Features: The dam was rebuilt in 1975 and now contains a stoplog spillway. The South Nation River's name comes from the Algonquin Indians. The river itself is 90 miles long and falls 150 feet and drains within 1,500 square miles.

II County Agreement Forests

(Cornwall District, Ministry of Natural Resources)

A total of 18,000 acres are managed by the Cornwall District in the counties of Stormont, Dundas and Glengarry, the general purpose of which is to promote reforestation of sub-marginal land as a demonstration area and, only to a limited extent, for erosion problems. There are four tracts in the Cornwall District that are of interest as well as many other isolated areas of forest. The area's characteristics are reflected in these four tracts.

1) Charlottenburg Township

a) Located at King's Road, five miles east of Martintown, is a 200-acre area, planted in 1949, with a wide variety of conifers such as scotch, red, white and jack pine, spruces and cedars. There are also some hardwoods such as hemlock. Perch are found in the stream that runs through the property. Toilets are proposed for 1976; a trail and picnic site in 1977.

b) Located north of the Summerstown exit on Highway 401, 2,200 acres of hardwood forest, some mature species such as hemlock and hard maple. There are 35- to 45-year-old hardwood stands, plantations of young trees three to five years of age and some recently cut over areas. This is a good wildlife area, in general, with road access. There is also an old gravel pit on the site.

2) **Finch Township**

Located five miles east of Berwick on County Road 9 is a 600-acre block and another 1,500 acres immediately adjacent. A nature trail is being cut through this area which has a wide variety of conifers which were planted in 1950 onwards up to the present day and some poplars were planted in 1973.

3) **Winchester Township**

Located east of County Road 7, four miles north of Chesterville, 500 acres, planted in 1955 with white and black spruce and white pine. There is mostly bog known as the Morewood Bog. There is also a knoll in this forest which is covered in red pine.

III Crown Lands

(Cornwall District, Ministry of Natural Resources)

The 4,000-acre total is generally due to the regeneration of natural forest and plantings over the last ten years. For further details, see Prescott and Russell United Counties.

A breakdown of acreage by township follows:

Charlottenburgh	1100 acres
Cornwall	300 acres
Finch	300 acres
Kenyon	400 acres
Lancaster	500 acres
Matilda	400 acres
Osnabruck	950 acres
Roxborough	450 acres
Williamsburgh	650 acres

V Provincial Fish and Wildlife Management Areas

(Cornwall District, Ministry of Natural Resources)

George Challies Public Fishing Area (Dundas County)

Location: The fishing area is five miles directly north of Upper Canada Village in Williamsburgh Township on the north side of County Road 18.

Features: 13.5-acre plot which was used as a quarry with 5.5-acre pit which is approximately 35 feet deep, now filled with water and used for brook and rainbow trout on a put and take basis. The pond is also being developed and will continue being developed until the site loses its quarry-like appearance. Jack pine, silver maple, white spruce and cedar have been planted and public facilities provided. A detailed pamphlet is available from the Ministry of Natural Resources.

Cornwall Recreation Area (Stormont County)

Location: From Highway 401 eastbound, exit at Power Dam Drive and go south. The area entrance is on the right-hand side. Or, from Highway 2, head north on Power Dam Drive.

Features: A 200-acre tract in the middle of which is a 14-acre pond being some 65 feet deep and stocked with brook trout. Facilities have been provided for the public and the site is still being developed. A 1800-foot walking trail on the pond's east side has been laid out and will soon be connected with a 1.5-mile trail skirting the entire tract. Several thousand trees, including white, red and jack pine, cedar, spruce, maple, mountain ash, poplar, willow, Russian olive and apple, have been planted around the pond in random clumps. These will attract even more bird species and provide shelter and an aesthetic environment for hiking and picnicking, and in wintertime, snowshoeing and cross-country skiing. The area was once a farmer's field and was excavated for aggregate for the Robert Saunders Dam and Cornwall Dyke. After the quarry was abandoned, several underground springs filled the pit with water. The site was converted into a sports-fishing area. The site is also a repository of other historical features. North of the pond, a ridge of trees now hides the old railbed of the New York Central Line which connected Ottawa with Cornwall and the United States in the 1800s when "timber was king" in the Ottawa Valley. A detailed pamphlet is available on this area.

Lake St. Lawrence Wildlife Agreement Area (Cornwall District, Ministry of Natural Resources)

Location: There are several access points, from Cedar Park on the west to Long Sault in the east. The interpretive and viewing area is on County Road 11, south of Highway 2 which is just to the east of Crysler Farm Battlefield park and Upper Canada Village. The purpose of this area is for strictly controlled and limited hunting at certain designated offshore locations which can be reached from six access points along the shore. The agreement covers an area of approximately 15,000 acres. Half of this area is under the protection of the Upper Canada Migratory Bird Sanctuary. The agreement area does not include the Wilson Hill Game Management Area of New York State's Waterfowl Sanctuary, on the opposite shore.

This stretch of the St. Lawrence lies in the path of the Atlantic flyway, a major north-south migratory highway for North American waterfowl, especially Canada geese. Huge flocks of geese pass through this area while moving between the southern wintering grounds around Chesapeake and Delaware Bays and the summer breeding grounds around James Bay. A detailed pamphlet is available on this area.

Upper Canada Migratory Bird Sanctuary (owned by the St. Lawrence Parkway Commission and managed by the Cornwall District, Ministry of Natural Resources)

Location: The area is to the south and east of Upper Canada Village and to the south of Highway 2 as far as Ingleside. The best access is along the Sanctuary Road off Highway 2 to Morrison and Nairn Islands.

Features: The area covers 3500 acres of flat and bushy land with marshy areas.

Nature Trails: There are three miles of marked trail with some labelling and a map at the entrance for the trails.

Nature Interpretation Program: The major part of the program at the sanctuary concerns the study of waterfowl biology. Banding of migrating ducks and geese in the fall and spring, as well as resident birds in the summer, provides useful information on movement which is used to aid effective management. At the sanctuary, one may observe nesting geese in April and May, blue and snow geese during migration, grouse and groundhogs around the edges of the wooded areas, red and grey squirrels and snowshoe hares. White-tailed deer may also be seen in the deer yard located around the swamp, the wood nesting boxes, black ducks, mallards and blue-wing teals, baldpates, some diving ducks in late fall, flocks of red-wing blackbirds in the swampy areas and many other forms of wildlife.

Other: From late September through November, at 2:30 p.m., food is provided for migratory birds. This provides an excellent opportunity to see waterfowl, especially Canada geese, at close quarters. A detailed pamphlet is available from the Cornwall District, Ministry of Natural Resources.

Winchester Provincial Wildlife Area (Dundas County)

Location: The area is approximately 30 miles south of Ottawa, a few miles west of Highway 31 and north of Highway 43, in Mountain Township.

Features: The 3600 acres of wetland and upland fields are covered with willows and alders and broken occasionally by groves of immature poplar. The area was never suited to agriculture and was purchased in 1962 to provide public hunting and the prevention of soil erosion on the branches of the South Nation River. The area is divided into thirty compartments by a system of foot trails which provide access for hunters, hikers, berry-pickers and snowmobilers and also act as a firebreak. To attract wildlife, openings have been cut, several trails seeded and brush piled to provide shelter. Large potholes have also been blasted to provide water for fire control and wildlife.

Other: A detailed pamphlet is available in the Cornwall District, Ministry of Natural Resources.

VIII Parkway Commission Lands

ST. LAWRENCE PARKS COMMISSION LANDS

Charlottenburgh Park

Location: 12 miles east of Cornwall.

Features: 125 acres of partly wooded land which is mostly flat with some marshy areas.

Crysler Farm Battlefield Park

Location: Seven miles east of Morrisburg.

Features: 3000 acres which includes the Upper Canada Village, a marina, a railroad station, which now is an old museum, and other memorials to pioneers and loyalists. There is an aircraft landing strip for light aircraft which is still in use and a maple sugarbush demonstration area (March 15 to April 15) which operates on a 300- to 400-acre area. In winter, this area has six miles of marked cross-country ski trails and is groomed for snowmobiles. There is also a riding trail.

Farran Park

Location: Highway 2, Ingleside.

Features: 88 acres which is mostly flat with very little bush.

Glengarry Park

Location: Two miles east of Lancaster.

Features: 62 acres of flat land, part of which is heavily wooded with softwoods such as maple. The area is now farmland and is regenerating, and is therefore suitable to succession and community studies.

The Long Sault Parkway

Locations: Mille Roches Park, Woodlands Park, Dickinson Park and McLaren Park, off Highway 2 between Ingleside and Long Sault.

Features: 1300 acres of recreation area with nature trails and bushed areas. The area is a series of islands joined by bridges and causeways after the water level rose behind the Saunders Dam. There are also winter recreation activities on this rolling area which is about 6.5 miles long and composed of 11 islands.

Morrison and Nairn Islands Park

Location: Nine miles east of Morrisburg.

Features: Morrison Park is composed of 172 acres of flat land with a small bushland area and a youth camp. Nairn Island covers 28 acres and is flat with no bush.

Raisin River Park

Location: Exit Highway 401 at Sommerstown, Interchange 126, and follow park signing. The park is located approximately one mile west of Lancaster.

Features: Wooded area; campground — 103 sites (60 electric); swimming pool; central comfort station.

Riverside and Cedar Parks

Location: 3.5 miles east of Morrisburg on Highway 2.

Features: Riverside Park covers 84 acres of flat and open land with a small amount of bush cover and camping areas. Cedar Park covers 87 acres of flat and bush-covered land with limited wildlife. Camping.

Part of Durham Region

The Upper Canada Migratory Waterfowl Sanctuary (See Fish and Wildlife Section)

Upper Canada Village

Location: On Highway 2, seven miles east of Morrisburg.

Features: The village covers 50 acres set in the Chrysler Farm Battlefield Park and represents life in the period from 1784 to 1867. In and around the 35 buildings in the village, one observes the following activities: agriculture; crafts such as spinning, weaving, dyeing, quilting and rugmaking; manufacturing such as blankets and sewing; transportation; tradesmen such as a baker, blacksmith, cabinetmaker and cheesemaker, also household tasks such as butter-making, candle-making and woodstove cooking. Skating is allowed on the canal and sleigh-rides are available in the winter. The area is open May 15 to June 14 for the hours 9:30 to 5:00, June 15 to Labour Day, opening hours are 9:30 to 6:30 and from Labour Day to October 15, 9:30 to 5:00.

Other: A guide map is available and a booklet on the story of Upper Canada Village, from the St. Lawrence Parkway Commission in Morrisburg.

REFERENCES:

Information is available from the following sources:

- 1) *The St. Lawrence Parks Commission*, Morrisburg, Ontario. Telephone (613) 542-8094 or 542-7388. The general manager may be contacted at 542-2961, the superintendent of historic sites at 543-2911 and the supervisor of marketing and communication services at 543-2951.
- 2) *The Cornwall District of the Ministry of Natural Resources* may be contacted at 40, 5th Street West, Box 1749, Cornwall, Ontario K6H 5V7, or telephone (613) 933-1774.
- 3) *The Raison Region Conservation Authority* may be contacted at Box 10, Martintown, Ontario K0C 1S0, or telephone (613) 528-4584.
- 4) *The South Nation River Conservation Authority* may be contacted at Berwick, Ontario K0C 1G0, or telephone (613) 984-2400.

I Conservation Authority Lands

(i) CONSERVATION AREAS (Developed)

Enniskillen Conservation Area (Central Lake Ontario Conservation Authority)

Location: Eight miles north of Bowmanville on Scugog Road, then one mile west on the 7th Concession Road and 0.5 mile north on Newcastle Road 10.

Features: 86 acres of valley lands and woodlands on the west branch of the Bowmanville Creek, surrounded by rolling and open farmland. The area also contains a marsh and two small ponds. Stands of mixed conifers and hardwoods grow on a variety of soils (loam, bottom-lands and muck) which overlie a shale bedrock.

Nature Trails: A two-mile trail goes up the valley and takes one through low, damp areas of white cedar and yellow birch, boreal vegetation on rolling to hilly terrain and open hawthorne areas. 0.75 mile of cross-country ski trail. The highest point is 755 feet above sea level in the southeast corner; the lowest point (635 feet) is in the northeast corner. For further details, contact the Information and Education Officer at central Lake Ontario Conservation Authority headquarters.

Nature Interpretation Program: A display has been set up in the interpretive barn. The area consists of four communities: (1) open park land (50%), (2) mixed deciduous, (3) mixed coniferous and deciduous, and (4) coniferous - white cedar. Songbirds, small mammals, pond studies and succession studies.

Conservation Demonstration: Within the open park land, sections have been planted with saplings — silver maple, white ash, tamarack and pine.

Historic Site: The Boyne Water Mills once stood on this property, but were washed out in 1928. This has left behind ruins, a spillway and an earthen dam.

Other: Winter facilities. Pamphlets. Land inventory and development plan. Included in the Inventory and Guide to Outdoor Education Sites within the Central Lake Ontario Conservation Authority.

Harmony Valley Conservation Authority (Central Lake Ontario Conservation Authority)

Location: From Highway 401 (Interchange 72) at Oshawa, north on Harmony Road to about 0.25 mile north of Rossland Road and east for one mile to the area.

Features: 69.5 acres around the ravine valley of the Harmony Creek. The area contains 30 acres of woodland — mature sugar maple, beech, yellow birch, basswood and black cherry; eight acres of marsh and 27 acres of open land. Loam bottomland and muck soils.

Nature Trails: Several paths wind their way through the area, passing through all the main features.

Nature Interpretation Program: No program is available, but there are significant areas for studies, mainly the hardwood woodlots and the bush in the south used by the Durham field naturalists (Oshawa Field Naturalists). The Lake Iroquois shoreline runs through the property but is best observed to the west of the property. The plant communities found in this area include: (1) buckthorn - red osier - white cedar scrub land; (2) open park land; (3) grass meadow; (4) fence row; (5) disturbed ground - weedy plants; (6) coniferous-deciduous forests; and (7) sugar maple bush.

Other: Inventory and development Plan. Included in the Inventory and Guide to Outdoor Education Sites within the Central Lake Ontario Conservation Authority.

Heber Down Conservation Area (Central Lake Ontario Conservation Authority)

Location: From Highway 401 (Interchange 67) go north on Highway 12 to Brooklin and then west on Highway 7 for one mile to Coronation Road.

Features: 576 acres of flood plain, valley walls, table land and steep ravines around the Lynde Creek. The area contains sand and gravel aggregates. Vegetation cover consists of woodland, wet woodlands, open areas and a one-acre pond.

Nature Trails: These were established in 1973 and a brochure is available as of 1977. Over two miles of cross-country ski trail are present.

Nature Interpretation Program: None is available, but contact the Information and Education Officer at Authority headquarters for assistance. The area contains cedar, pine, maple, and balsam along the Lynde Creek. Scrub, soft maple, birch and dogwood on the wetlands and mixed hardwood and softwood stands.

Historic Site: Heber Down was a farmer and conservationist. Abandoned Canadian Northern Railway line present on the property.

Other: Pamphlets available. Included in the Inventory and Guide to Outdoor Education Sites within the Central Lake Ontario Conservation Authority.

Purple Woods Conservation Area (Central Lake Ontario Conservation Authority)

Location: North of Raglan Road on Regional Road No. 2 (Simcoe Street) near Oshawa City limits (north of the railway tracks).

Features: 41 acres of open and rolling topography on the Oak Ridges Moraine. Scenic view.

Nature Interpretation Program: A maple syrup demonstration is run in the early spring.

Historic Site: Farm.

Other: Adjacent woodlots. Included in the Inventory and Guide to Outdoor Education Sites within the Central Lake Ontario Conservation Authority.

Bowmanville Harbour Conservation Area (Central Lake Ontario Conservation Authority)

Location: One mile south of Highway 401 at Interchange 75 (3.5 miles south of Bowmanville), off Liberty Street, on the west side of Simpson Avenue.

Features: 57 acres at the junction of the Bowmanville and Soper Creeks. The area contains a swamp and is separated from Lake Ontario by a beach and a spit.

Nature Trails: Shoreline walk.

Nature Interpretation Program: Wildlife. Aquatic vegetation.

Historic Site: The old Port Darlington Harbour.

Lynde Shores Conservation Area (Central Lake Ontario Conservation Authority)

Location: Three miles southwest of the old Town of Whitley. Exit Highway 401 at Howard Street and go south on Brock Street, then west on Bailey Street (Victoria Street). The area is located two miles west of the intersection of Brock and Victoria Streets.

Features: 366 acres of marsh, Lake Ontario shoreline, agricultural land and woodlots. The Lynde Creek and Cranberry Marshes are present on the property. The area has been designated as a Wildlife Sanctuary.

Nature Interpretation Program: None is available, but this is an excellent area for observing wildlife, especially migratory waterfowl.

Other: Included in the Inventory and Guide to Outdoor Education Sites with the Central Lake Ontario Conservation Authority.

Hampton Mill Pond Conservation Area (Central Lake Ontario Conservation Authority)

Location: In the Village of Hampton. Exit Highway 401 at Bowmanville and go up County Road 14 to Taunton Road (County Road 4) and go west to Scugog Road.

Features: 15 acres on the Bowmanville Creek with a pond and a grist mill.

Nature Interpretation Program: None presently available.

Historic Site: H. Elliott Mill operating until 1974. Presently closed to the public.

Other: Included in the Inventory and Guide to Outdoor Education Sites within the Central Lake Ontario Conservation Authority.

Long Sault Conservation Area (Central Lake Ontario Conservation Authority)

Location: Nine miles north of Bowmanville on County Road 57; then two miles east on the 9th Concession Road to the park.

Features: 200-acre source area on the crest of the Oak Ridges Moraine. The area was previously cleared for farming but has now been abandoned so the grass communities are moving in as in an old field succession.

There is a wilderness area at the north end of the property containing a sugar maple bush, beech trees and ravines. A small plantation area of scotch and red pines. The area is divided into 95 acres of undulating woodland and seven acres of wetlands.

Nature Trail: Hiking and cross-country ski trails available.

Nature Interpretation Program: There is a good variety of wildlife habitat, e.g., mature upland forests, cedar lowlands, clearings, open fields, regenerating pockets of land, plantations and fence row communities. Many species of wild flowers, once common, can now only be found on the Oak Ridges Moraine and a few other undisturbed areas. Soils consist mostly of sands with some loam and muck soils.

Conservation Demonstration: Plantings to prevent erosion of scotch and red pine.

Historic Site: Nearby is Woody's Sawmill which is still in commercial use and one mile further downstream is the Tyrone Sawmill which is also in commercial use.

Other: Winter facilities.

Stevens Gulch Conservation Area (Central Lake Ontario Conservation Authority)

Location: Part of Lot 6, Concession 4, Town of Newcastle. Approximately three miles from the centre of the old Town of Bowmanville on Liberty Street North.

Features: 118 acres of former agricultural lands on the Soper Brook. There are 15 acres of wooded lowlands and 39 acres of open, rolling uplands cut by many small ravines. Woodlands consist of willows, white birch and cedar.

The Upper Airport Conservation Area (Central Lake Ontario Conservation Authority)

Location: Exit Highway 401 at Interchange 70 in Oshawa and follow Simcoe Street North to Taunton Road West.

Features: 86 acres of valley lands and flood plains. The eastern valley slope is wooded with cedar and maple. A small cottage community. The Oshawa Creek runs through the area.

(iii) CONSERVATION AUTHORITY AGREEMENT FORESTS (Central Lake Ontario Conservation Authority)

Location: In Bowmanville, take Liberty Street to Regional Road No. 5 and then go east on the 9th Concession, Darlington Township.

Features: 295 acres of immature hardwoods - sugar maple, white elm, white birch and poplar with 50 acres of Christmas trees. One-third of the area is open.

II Regional Agreement Forests

The Ganaraska Forest (Lindsay District, Ministry of Natural Resources)

Location: The Great Pine Ridge.

Features: 3,000 acres of second growth forest on typical Oak Ridges Moraine topography. The dominant species are basswood, red oak, white ash, hard maple, cherry, beach and poplar. The area was used last century for the ship-building industry — masts, spars, etc. The area was later farmed after it had been cleared, but this was unsuccessful due to erosion. In 1922, reforestation began by Durham County, hence the Orono Nursery which produced jack and red pine to alleviate the erosion. These trees quickly established themselves on blow sand due to the nature of their root system. Planting is still carried on. For further details, see Peterborough County, the Ganaraska Forest, or contact Mr. Bob Penwell at the Lindsay District Office of the Ministry of Natural Resources.

III Crown Lands

The following lands are owned and managed by the Lindsay District Office of the Ministry of Natural Resources.

Cavan Township

Location: Concession 3, Lot 10, 150 acres.

Features: A fishing area on the Baxter Creek.

Cartwright Township

Location: Concession 7, Lot 19.

Features: 62 acres of swamp on the East-cross Creek.

Clark Township

Location: 130 acres on the Wilmott Creek, from just north of Lake Ontario to Highway 2, for purposes of public access for fishing, and Concession 6, part Lots 9 to 16.

Features: 860 acres of hills, forest and ranch land.

Hope Township

Location: Concession 8, north half of Lot 30; 100 acres on a tributary of the Ganaraska River, and the Ganaraska fishway just south of Highway 401 (See Fish and Wildlife).

IV Forest Stations and Nurseries

The Orono Provincial Forest Station (Richmond Hill)

Location: The station lies on the western outskirts of Orono Village just off Highways 35 and 115, and four miles north of their junction with Highway 401. The entrance is off Durham Road No. 17.

Features: 1,350 acres of level to gently rolling glacial topography on either side of the Wilmott Creek. The deep

overburden contains an old gravel pit, beneath which is a limestone bedrock. Windbreaks. Of the total 1,350 acres, 400 acres are suited to nursery stock production, 650 acres are rough, rolling land suitable for plantations and 300 acres are low-lying creek bottom land.

Nature Trails: There are none on the property; however, in the adjacent Orono Village Park, trails have been laid out. Access roads run throughout the forestation.

Nature Interpretation Program: A good variety of wildlife is found in the rough areas, such as small mammals, deer, pheasants, game and songbirds. There is natural second growth of tolerant hardwoods and some cedar swamp along the creek. The nursery contains red pine, white pine, scotch pine, jack pine, white spruce, Norway spruce and other stock such as silver maple, black locust, red oak, white ash and black walnut. A bus tour of the forest station is possible. One would observe trees from one to four years of age, deciduous tree stock (being eight to 10 feet high) for the Ministry of Transportation and Communications and an ornamental park. There is a building off Taunton Road which is used by the Northumberland and Newcastle Boards of Education (contact the Boards for use of this building as an outdoor classroom). Films and slides can be shown in the buildings on the site. A history of the nursery exists. One can also study the seed orchard and grafting processes.

Historic Site: Development of the Orono Nursery began in 1922 on the original 350-acre tract.

Other: The best time to visit is in June for transplanting, etc., or September. Activities on the forest station are dependent upon the weather, so please telephone ahead. A pamphlet is available for further details.

V Provincial Fish and Wildlife Management Areas

The Ganaraska Fishway (Lindsay District, Ministry of Natural Resources)

Location: Port Hope, immediately south of Highway 401, on Ganaraska Region Conservation Authority property.

Features: The fishway was built in 1974 to enable migrating trout to reach the excellent spawning areas upstream from the Corbett Dam (1849) on the Ganaraska River. The fish passage facility consists of a series of step-like pools which by-pass the dam.

In the spring of the year, primarily during April and early May, rainbow trout travel upstream through the fishway in large numbers, on their spawning run. In the autumn, the fishway is used by smaller numbers of both rainbow and brown trout. A large wire basket traps trout moving through the fishway and biological information is recorded for each fish before it is released upstream. Fish tagging operations

are conducted.

There is no charge for spectators and there is a viewing platform at the fishway. Contact the Fish and Wildlife Supervisor at the Lindsay District Office for further details.

Other: A slide show explaining the fishway operations is available.

An interpretive brochure may be obtained at Lindsay District Office.

The Nonquon River Provincial Wildlife Area (Lindsay District, Ministry of Natural Resources)

Location: Between the 7th and 11th Concession of Reach, Scugog Township, east of Highway 12. About 50 miles northeast of Toronto, 20 miles north of Oshawa and two miles north of Port Perry.

Features: This excellent wildlife area consists of 2,835 acres of swamp, forested lands and open fields along the Nonquon River. The area is inhabited by game birds such as woodcock and ruffed grouse as well as white-tailed deer, waterfowl, coyotes and smaller mammals. The river is suitable for sport fishing and early season canoeing and is utilized as a spawning area for maskinonge and largemouth bass. There are several small ponds which support waterfowl and largemouth bass.

Wildlife management is conducted by the Lindsay District Office. Plantings of wildlife shrubs, selective forest cuttings, wood duck nesting boxes and holding pens for ring-necked pheasant may be observed at Nonquon.

Interpretive Trails: An interpretive trail of approximately one mile in length has been laid out. The central theme is ecological succession and an instructor's preparatory trail guide and a student's interpretive guide are available from the Lindsay District Office.

Interpretation Program: Approximately 87 acres have been designated as an "Environmental Education Area". The trail is contained in this area and an indoor interpretive display is being developed.

VII Provincial Parks and Park Reserves

Kendal Park Reserve (Lindsay District, Ministry of Natural Resources)

Location: From Highway 401, go eight miles north on Highway 35 to Regional Road No. 9 at Kirby and then go east for three miles.

Features: 850 acres of recreation area with some mature stands of hardwood, 30 acres of conifer, but mostly open grassland on the Oak Ridges Moraine. The area was cleared of its original white pine, and is now approximately 80% grass cover. Over the last seven or eight years, 500 acres

have been replanted with conifers and hardwoods.

Nature Trails: There are no trails but hiking is possible in spring, summer and fall; all services are available except toilets.

Nature Interpretation Program: There are two ponds, but they are not stocked. It is a good wildlife area. There is fishing on a tributary of the Ganaraska River at the north end of the property. The area has scenic value in that it is gullied and hilly.

Historic Site: Old Mill Pond ruins and grist mill foundations.

Other: Winter activities.

Scugog Park Reserve (Lindsay District, Ministry of Natural Resources)

Location: From Port Perry take Highway 7A three miles east then north on Regional Road 7 to the end of the Island.

Features: 450 acres of mainly agricultural land on the slopes of three drumlins. There are wetland forests and shrubby swamps on the north-west of the property and along the shorelines. Several maple-beech-hemlock woodlots remain.

Other: At present, this Park Reserve is managed as a day-use public access to water facility. In addition, a controlled pheasant hunt is held annually from October till early November.

Darlington Provincial Park (Lindsay District, Ministry of Natural Resources)

Location: Turn off Highway 401 at Interchange 73. The park is on the eastern limits of Oshawa, three miles southwest of the Courtice Road.

Features: A 380-acre recreation park with gently rolling topography and frontage on Lake Ontario. There is a small ravine and a trail which leads up the Robinson Creek.

Vegetation cover consists of plantation areas and open grassed areas.

Nature Trails: There is a walking trail along the Robinson Creek ravine and a guide, with information on the various plants and evidences of animal life to be seen along the way, can be obtained at the campground office.

Nature Interpretation Program: Migratory birds - great numbers of gulls, geese, terns, plovers and several species of ducks pay an autumnal visit to Darlington before departing for warmer climates and return again in spring. The great blue heron which inhabits Darling Park stands over four feet tall and is the largest of the dark herons. Sunfish, bull-heads, frogs, crayfish and large aquatic insects comprise the blue heron's diet. Wildlife is otherwise very limited.

Historic Site: Late in the 18th century, hundreds of families loyal to the British crown were forced to flee the United States after the victory of the revolutionaries. They crossed Lake Ontario, from new York, in search of farmland. Among

them were the Trulls, Contants and Burks who settled in what is now called Darlington Township. Many evidences of pioneer days still exist in the park. There are several hedgerows and a cemetery with weathered headstones; the names of the first settlers can still be found in the local telephone book. A pioneer cabin - a log homestead donated by Darlington Township - has now been restored. It contains period furniture and an exhibit of a lifestyle at that time. An interpreter is available.

Other: See the superintendent, Mr. Brian Swaile, for further details at Darlington Provincial Park, R.R. 2, Bowmanville, Ontario, or telephone (416) 723-4341.

IX Federal Lands

The Trent-Severn Waterway

(See Peterborough County)

REFERENCES:

Central Lake Ontario Conservation Authority, 1650 Dundas Street East, Whitby, Ontario L1N 2K8. Telephone (416) 579-0411.

Lindsay District Office, Ministry of Natural Resources, Ontario Government Building, 322 Kent Street West, Lindsay, Ontario K9V 2Z9. Telephone (705) 324-6121.

The Orono Forest Station, Orono, Ontario. Telephone (416) 983-9147.

Frontenac County

I Conservation Authority Lands

(i) CONSERVATION AREAS (Developed)

Arden Conservation Area (Napanee Region Conservation Authority)

Location: Take Highway 41 north and then Highway 7 east to Henderson/Arden Road and then go south to the Village of Arden.

Features: 235 acres of Canadian Shield topography with a vegetation cover of mixed forests - a natural second growth. The Salmon River is located in the northwest of the area and there is a very shallow and marshy area known as Mud Lake or cedar Lake.

Nature Interpretation Program: None is available. However, there is a good wildlife area where deer can be seen.

Gould Lake Conservation Area (Catarqui Region Conservation Authority)

Location: From Harrowsmith on Highway 38, take County Road 5 east to Sydenham and travel 6.5 miles northeast of Sydenham to Gould Lake, or exit from Highway 401 on Sydenham Road going north through Sydenham and continuing to Gould Lake.

Features: 1,455 acres of wilderness areas including a 720-acre lake. The Canadian Shield topography provides rolling to hilly landscape with rough terrain and exposures of bedrock. The vegetation includes a maple and beech forest, and a marsh. Sand beach. Mica mines.

Nature Trails: There are 15 miles of excellent marked trails leading past the mica mines, over variable terrain and around the lake where there is another network of trails. An interpretive trail program has been set up for this area. The area provides five to six acres of camping sites and excellent canoeing. The Rideau Trail passes through the area on the west side of the lake.

Nature Interpretation Program: This is an excellent wildlife and waterfowl area and provides opportunities for community, pond, geological, and natural history studies. The field centre for the Frontenac Board of Education is on the property.

Conservation Demonstration: Reforestation in 1974 with red pine and white spruce seedlings.

Historic Site: The mica mines first opened in 1878 and closed in the early 1930s. An article is available on the mines from the Conservation Authority: **Mica Mining in the Gould Lake Area**, by Ross Mantle, 1975. A copy is available for study at C.R.C.A. headquarters.

Other: A pamphlet is available on this area.

The "K" and "P" Trail (Mississippi Valley Conservation Authority)

(See Lanark County).

Little Catarqui Creek Conservation Area (Catarqui Region Conservation Authority)

Location: Exit Highway 401 at Interchange 102 and go north on Division Street (Perth Road) for one mile and look for the sign on the west side of the road.

Features: 968 acres including a 150- to 225-acre reservoir (depending on level). It is an open area, but contains a sugar maple bush and the Authority headquarters and workshop. Cross valley moraines.

Nature Trails: An 11-mile network has been developed for which a map is available. Each one is marked and labelled variously "Hardwood Trail", "Alder Trail", "Pine Trail", etc.

Nature Interpretation Program: An interpretive classroom is available in C.R.C.A. headquarters. The area is suited to tree identification, plant studies, soil studies, community studies and pond studies.

Conservation Demonstration: A dam in the southwest corner of the property. Red and white pine, and white spruce were planted in 1971, 1973, and 1976.

Historic Site: Remains of a prehistoric horse (see Queen's University).

Other: Winter activities,

Palmerston-Canonto Conservation Area (Mississippi Valley Conservation Authority)

Location: North of Highway 7 and east of Highway 41, four miles northeast of the Village of Ompah.

Features: 317 acres of rolling Canadian Shield topography with hills and two lakes. The vegetation cover consists of second growth hardwoods such as poplar, hard maple, spruce and mixed forest. There are pothole ponds and small, scattered marshy areas and numerous rock outcrops.

Nature Trails: Eight different trails cross the forest to the hilltop lookout. They are marked and have rustic log benches along the way.

Nature Interpretation Program: None is available. The area is good for wildlife such as deer. Fishing.

Conservation Demonstration: Rehabilitation of gravel pits. A control dam between Palmerston and Canonto Lakes.

Other: Winter activities - snowshoeing and cross-country skiing.

Portland Conservation Area (Napanee Region Conservation Authority)

Location: Just off Highway 38, one mile south of Verona.

Features: 43 acres of opened, rocky and rolling land with access to Silver Lake. Scattered and large deciduous trees.

Nature Trails: None exist, but there are proposals for trails through the wet, wooded areas.

(ii) **CONSERVATION AREAS (Undeveloped)**

The Bellrock Mill Conservation Area and Dams
(Napanee Region Conservation Authority)

Location: Bellrock Mill Conservation Area is located on Depot Creek at the corner of Main and Water Streets in the Hamlet of Bellrock, four miles west of Verona.

Features: The area itself occupies less than one acre of land. The site includes two dams - one feeds directly through the old mill and the other lies 200 feet to the east on the main channel of Depot Creek.

Historic Site: The Bellrock Mill is one of the few existing mills in Eastern Canada to include a complete and workable saw mill, planing mill, veneer mill, (specially designed for the construction of cheese boxes) and a flour and grist mill all under the same roof. Because of this, and some of its fine examples of early Canadian technology, the mill remains historically significant and irreplaceable. The mill is currently being restored.

Dead Creek Conservation Area (Napanee Region Conservation Authority)

Location: Take Hendersen Road north from Highway 7 to Kennebec Township. It is situated 13 miles northeast of Kaladar.

Features: 965 acres of Canadian Shield topography with frontal woodlands and overgrown areas, and growth of sphagnum moss. The vegetation cover consists of mixed forest, marsh, beaver ponds and a small conifer stand. The area is surrounded by crown land.

Nature Trails: There is road access to Hungry Lake to the east of the property.

Nature Interpretation Program: A study of the area was undertaken in 1974. Although a nature interpretation program has not yet been set up, the area has proven itself excellent for wildlife observation.

Grenville Park Conservation Area (Cataraqi Region Conservation Authority)

Location: Off Bath Road in Kingston, beginning at King Street (Waterfront).

Features: A 20-acre flat, linear park forming a greenbelt within the City of Kingston.

Nature Trails: Hiking on part of the Rideau Trail.

Depot Lakes Conservation Area (formerly Hinchinbrooke Conservation Area) (Napanee Region Conservation Authority)

Location: Take Highway 38 to Snider Road (just north of Verona), turn west and follow the signs for six miles.

Features: 3,319 acres of wilderness area around the Depot Creek with rugged Canadian Shield topography. The vegetation cover consists of mixed forests with conifers dominating. There are a few marshy areas, flooded

woodlands and numerous rock outcrops in this mature forest area. The area contains clean and clear lakes known as Second, Third and Fourth Depot Lakes, and Clear Lake.

Nature Trails: Hiking trails and snowmobile trails were cut and marked in 1976.

Nature Interpretation Program: The area lends itself very well to a nature interpretation program. Studies carried out in 1977 have proven the area ideal for wilderness camping, plant, shrub and tree identification, pond studies, bird watching, wildlife observation and herpetology.

Lemoine Point Conservation Area (Cataraqi Region Conservation Authority)

Location: Just west of Kingston Airport on Front Road, Kingston.

Features: 337 acres of flat limestone topography with a lake frontage of over 8,000 feet, partially in the form of a pebble beach on Lake Ontario. The vegetation cover consists of a mature sugar maple bush, open fields with a limited understory in the hardwood terrain. An Intermittent stream.

Nature Trails: 3.5 miles of marked trail for which a map is available on request.

Nature Interpretation Program: The area is suited to succession studies, stream studies and marsh studies. There is access to the lake.

Historic Site: The Coverdale family estate.

Queen's Acres Conservation Area (Cataraqi Region Conservation Authority)

Location: From Kingston, take Highway 33 west (Bath Road) to Coronation Boulevard, then go north to the greenbelt.

Features: 59 acres of marsh and hardwood swamp - black ash.

Second Depot Lake and Dam Conservation Area
(Napanee Region Conservation Authority)

Location: Take Highway 38 to Snider Road, turn west and follow the signs for six miles.

Features: The total acreage is 1,331 of which 496 are under agreement forest and 835 are managed by the Authority.

Nature Trails: These were cut and marked in 1976, and there is road access to the southwest corner - the day-use area. Canoeing and two boat launches. An upper and lower campsite - 39 sites.

Nature Interpretation Program: Second Depot Conservation Area is perhaps the most popular of the Depot Lakes Conservation Area. Although under intensive recreational use, the area is able to maintain a wilderness atmosphere allowing nature interpretation. The area is ideal for plant, shrub and tree identification, pond studies, bird watching, wildlife observation and herpetology.

Other: Immediately adjacent are 496 acres of agreement forest.

Vanderwal Property (Cataraqi Region Conservation Authority)

Location: South of the Village of Wilmer and east of Sydenham, Loughborough Township, Concession 7, Lot 14.
Features: 71 acres of old agricultural lands.

Boat Ramps (Cataraqi Region Conservation Authority)

Collins Creek Access

Location: Off Perth Road, approximately five miles north of Highway 401.

Features: 0.15 acre

Cronk Lake Boat Ramp

Location: Loughborough Township, Concession 9, Lot 8.

Features: 0.18 acre adjacent to Gould Lake Conservation Authority.

Elbow and Otter Lake Boat Access Points

Location: Loughborough Township, Concession 2, Lot 9, and Concession 12, Lot 10.

Features: 2.25 acres, two to three miles north of Cronk Lake.

Loughborough Lake Boat Ramp

Location: Storrington Township, Concession 5, Lot 19. Take Parth Road north from Interchange 102 on Highway 401 for 10 miles.

Features: Two acres with two picnic tables.

Seely's Bay Boat Ramp

Location: Rear of Leeds and Lansdowne Township, Concession 7, Lot 3.

Features: 1.6 acres with picnic tables.

Sydenham Lake Boat Ramp

Location: Loughborough Township, Concession 7, Lot 13.

Features: Two acres with picnic tables.

West Street Boat Ramp

Location: In the City of Kingston off West Street.

Features: 0.75 acre.

Historic Site: Adjacent to the boathouse museum. (Steam.)

(iii) CONSERVATION AUTHORITY AGREEMENT FORESTS

Cataraqi Region Conservation Authority Agreement Forest

The Brockville District Office is the Authority's contact for the Agreement Forest. Of the 946 acres under agreement, only 423 can be considered production forest. In the planting and protection programs, the Ministry of Natural Resources has planted (from the spring of 1971 to 1975) over 120,000 spruce and pine trees. The protection of these trees has included the use of malathion and chlordane

against sawflies and grubs. Inter-planting larch with white pine has been used as a method of protecting the pine against the white pine weevil. Secondary forest uses for these areas include wildlife management, recreation, interpretation and education.

(iv) WATER CONTROL AREAS

The Arden Dams (Napane Region Conservation Authority)

Location: The upper, middle and lower dams are located in the hamlet of Arden, Kennebec Township, one mile south of Highway 7. The dams were acquired in 1967 and repairs completed in 1969.

Farm Lake Dam (Mississippi Valley Conservation Authority)

Location: Near Ardock on the Mississippi River.

Features: A weir to maintain water level.

Hardwood Creek Dam (Napane Region Conservation Authority)

Location: Half of mile south of Verona, between Highway 38 and the C.P.R. bridge, approximately 200 feet downstream from Highway 38.

Features: A right of way to the dam is all that exists. The dam regulates the summer water levels of Howe, Silver and Verona Lakes for recreational purposes as well as augmenting low flows in the fall.

Portland Channelization (Napane Region Conservation Authority)

Location: South of Verona on Hardwood Creek.

Features: No land is owned in this area adjacent to Highway 38, Desert Lake Road and Davenport Road (private). The channel was blasted in 1969 and a culvert installed for boat access to Howe, Verona and Silver Lakes. This was for the purpose of small craft navigation.

(vi) FLOOD PLAIN LANDS

The Little Cataraqi Creek Valley Lands (Cataraqi Region Conservation Authority)

Location: The western limits of the City of Kingston.

Features: 200 acres of greenbelt at the beginning of the Rideau Trail.

II County Agreement Forests

The forests of Frontenac County are managed by the Napane District of the Ministry of Natural Resources and the Tweed District of the Ministry of Natural Resources. The area is rocky and hilly with shallow soils. The land was settled and logged very early in Ontario's history. A series of

fires destroyed good pasture land which now lies abandoned. Today, mostly protection forest exists and poplar, red maple, red oak, white oak, sugar maple, white birch and white pine. In all, there are 3,000 acres of protection forest, 563 acres of production forest and 2,944 acres of non-productive forest together with 212 acres of water and 84 acres of non-forested land. Reforestation is going on now, but in the past there was no management program, only plantings. The purpose of the reforestation is for site protection, shelter and food for wildlife, recreation and aesthetic value. A breakdown of the Frontenac County forest follows:

Hinchinbrooke Township	5,588 acres (Tweed)
Kennebec Township	523 acres (Tweed)
Portland Township	500 acres (Napaneee)

For more details, see the Management Plan at the Napaneee Office.

III Crown Lands

The greater part of the crown lands of Frontenac County are managed and owned by the Tweed District Office of the Ministry of Natural Resources. In all, 537,350 acres are managed and 95,000 acres of water - the large number of lakes caused by the glaciation of the Canadian Shield. Crown lands, therefore, cover one-third of the district. For further reference, refer to the **Land Use Plan for Queen's Park** by J.W. Keenan, 1964, **A History of the Tweed Forest District**, The District Historical Series, No. 19, 1965, and **The Forest Resource Inventory 1957**, Report No. 18, Tweed District. Barrie, north and south Canonto, Miller, Clarendon and Palmerston Townships, located north of Highway 7, are all of Canadian Shield topography. Kennebec, Olden and Oso Townships, divided by Highway 7, Hinchinbrooke Township, and all the other areas south of Highway 7 are on the limestone plain. In south Canonto, one can observe timber production, white pine management and logging operations and recreation use.

In north Canonto Township, one can see timber production, white pine management and logging operations. White pine management and logging operations can be seen in Miller Township. Hybrid poplars and improved hardwoods can be found in Hinchinbrooke Township. A breakdown by township follows:

Barrie	35,488 acres
North Canonto	29,836 acres
Canonto South	26,112 acres
Clarendon	22,100 acres
Hinchinbrooke	2,500 acres

Kennebec	24,750 acres
Miller	38,618 acres
Olden	10,800 acres
Oso	2,900 acres
Palmerston	20,600 acres

For further information, contact the District Manager at (613) 478-2330.

The Crown lands in Bedford Township are managed by the Napaneee District Office of the Ministry of Natural Resources. The 10,000 acres show second growth of natural forests and plantations.

The Mississippi Canoe Route passes through Frontenac County from Mazenaw Lake to Dalhousie Lake. Contact the Mississippi Valley Conservation Authority for further details. The Rideau Trail passes through Frontenac County. See Leeds and Grenville Counties for further details. The Tay River canoe route passes through Frontenac County. See Lanark County for details or the Rideau Valley Conservation Authority.

V Provincial Fish and Wildlife Management Areas

The White Lake Fish Culture Station (Tweed District, Ministry of Natural Resources)

Location: On Highway 7, three miles west of the junction of Highway 38 and Highway 37 at Sharbot Lake in Olden Township.

Features: 100 acres of rolling topography on the edge of the Canadian Shield. The vegetation cover is of mixed forest with hardwoods being dominant, and 50 % of the property is forested.

Nature Interpretation Program: For tours, contact the Manager. The White Lake Fish Culture Station carries out three basic operations: the hatching of warm water species, the rearing of cold water species and the stocking for 10 districts in Ontario. A natural population of small-mouthed bass in White Lake is allowed to reproduce annually. The newly hatched bass (fry) are then removed from the lake and distributed in the rearing ponds which are fertilized to produce an abundance of plankton on which the young fish feed naturally. After the rearing stage in the ponds, the bass are held in the raceways and stocked during the summer in lakes where the need for introducing fish has been proven. The best time for the large-mouth bass operations of the station is during the summer. Lake and brook trout fingerlings arrive at the station from other Ontario hatcheries. During the winter, they are fed on a diet of beef livers and commercial fish pellets. In April, the trout are taken by seine nets from the ponds assembled for loading

on trucks, airplanes and helicopters for transportation to various lakes. The best viewing time for trout operations is April through May. Occasionally, other fish species such as rainbow trout and yellow pickerel are held at the station, sometimes for experimental purposes.

Other: The station is open to the public seven days a week, all year, from 9:00 a.m. to 4:00 p.m. Guided tours for schools and the groups can be arranged. For more information, write or telephone the Hatchery Manager, Keith Steele, White Lake Fish Culture Station, R.R. 1, Sharbot Lake, Ontario KOH 2B0. Telephone (613) 335-2115.

Wolfe Island (Sandy Bay Wetlands) (Napanee District, Ministry of Natural Resources)

Location: In the southwest corner of Wolfe Island around Sandy Bay.

Features: 900 acres managed by the Ministry of Natural Resources and owned by the Parkway Commission. There is an old sand bar across the mouth of the bay, the dunes and the pitch pines. Swamp complex and a lake with carp.

Nature Trails: Road access only.

Nature Interpretation Program: Succession studies, excellent nesting and brooding areas for waterfowl.

Conservation Demonstration: Waterfowl management.

VII Provincial Parks and Park Reserves

Frontenac Provincial Park (Napanee District, Ministry of Natural Resources)

Location: Go 20 miles north of Kingston on the Township Road through Sydenham, then east to the park on the dirt road over Otter Lake.

Features: This park is not developed yet and internal camping is not allowed. No snowmobiles. There are 12,000 acres of natural environment park with the main theme being threshold wilderness teaching on the trail and by canoe. There are shorelines and over 20 lakes, the largest being Devil's Lake. The trend of the terrain is from northeast to southwest with shallow soils over a granite and gneiss bedrock. There are steep drops down to the lakes and a few sand beaches are found.

Nature Trails: An interpretive centre is to be set up at the lodge at the southwest end of Big Salmon Lake. The Rideau Trail passes through the area and the District Office's master plan should be consulted regarding the completion of the following trails.

- 1) Big Salmon Lake Trail
- 2) Black Lake Trail
- 3) Kingsford Lake Trail
- 4) Otter Lake Trail

In all, there are up to 60 miles of trail.

Nature Interpretation Program: The area is excellent for wildlife including a heronry, eagles, turkey vultures, osprey, loons, a swallow colony and the red-tailed hawk. The area suffers from poor drainage and there are large numbers of swampy areas, especially in the southern half of the property. The geology of the area is also of great interest being a marble-folded dome with massive, gneiss dissected pluton and rugged, linear ridges which would be useful for a strike and dip field work. La Belle Gorge is a good area to study bog mat communities, ridge complexes and tarless forests. Arab Lake Gorge is a good area for the studying of uncommon ferns and valley forests. Beaver habitat is widespread with up to 136 houses identified. Game birds are limited but there are waterfowl, deer, brush wolves and numerous small mammals and the black rat snake (harmless). Most of the small lakes are in a eutrophic condition, but the large lakes tend to be from oligotrophic to mesotrophic.

Historic Site: The area was inhabited by Indians until the late 18th century and it was settled in the early part of the 19th century (1829) and Bedford Mills was a nearby sawmill. The area was later important for the shipping out of minerals and logs. In all, there were four mines in the area: The Antoine, Connor and Daly, tett and Warfel.

Other: A useful reference is **The History of Frontenac Provincial Park**, by Miss G. Lucas, 1972. Consult the District Office for this reference. A detailed bibliography is available upon request at the District Office.

Sharbot Lake Provincial Park (Tweed District, Ministry of Natural Resources)

Location: Take Highway 7, four miles of the junction with Highway 38.

Features: 115 acres of Canadian Shield topography of which 17 acres are in Black Lake which has a 400-foot beach. The topography is hilly, especially the area between the lakes which has rocky outcrops and a mixed tree cover.

Nature Trails: 1.25 miles of hiking trail, ski trails of 5.5 miles west on the Frontenac Road. A projection booth amphitheatre with a capacity of 200.

Nature Interpretation Program: A tour every Friday to White Lake Fish Hatchery which is nearby. The immediate area consists of approximately 2,200 acres and connects with a large tract of crown land. Extensive reforestation has been carried out by the Ministry with first plantings in 1966.

Historic Site: Early settlers homesteaded in this area - the foundations of which can still be found.

The Bauder Property Park Reserve

Location: Part Lots 4 and 5, Concession 9, Barrie Township. Consult the Tweed District Office for further details.

Features: 86 acres with an access point to the Mississagagon Lake. The area consists of hilly to rolling

topography, abandoned farmland and mixed forest.

Historic Site: There is a stone cairn plaque dedicated to Mr. and Mrs. Bauder who donated the property to the Authority. An old barn.

Casey Point Park Reserve

Location: Go north of Kingston and Division Street and then east to the Rideau Canal.

Features: 80 acres of the edge of the Canadian Shield extending in the form of a peninsula into the Cataraqui River. A rock hill covers a quarter of the area, the rest being fairly flat. A hardwood brush covers 10 acres with the rest of the area being open fields or reforested.

Nature Trails: Road access.

Nature Interpretation Program: The area has somewhat limited wildlife - game birds, migratory birds, small mammals, songbirds. In the high grass area, one may find the black rat snake. There are marshy areas along the shoreline.

Conservation Demonstration: Reforestation began of ash and silver maple in 1970. A dam to the south of the park which forms part of the locks on the Rideau Canal (Kingston Mills).

Historic Site: On an historic water route.

VIII Parkway Commission Lands

Old Fort Henry (St. Lawrence Parkway Commission)

Location: Exit No. 104 and Highway 401. Go south, follow the signs along Highway 15.

Features: Old Fort Henry began as a bridge fortress in 1812 and the earth fortifications were completed in 1814. The purpose was to protect the British naval dockyard at Kingston. From 1832 to 1836 the fort was completed as it is today. Fort Henry straddles the rise of land above Navy Bay and the City of Kingston, was constructed in the troubled years during the War of 1812-1814 to protect what then promised to become the capital of Canada and the southern terminus of the Rideau Canal. Defended by Glacis, Ditch, Caponniere, reversed fires, towers and all the paraphernalia of early 19th century fortification, and having cost in excess of £80,000 (pounds sterling), it was widely acknowledged at the time as the mightiest military bastion west of Quebec. Though the old fort's guns were never fired in anger, it was continuously garrisoned with some 33 different imperial regiments until 1870 - Wellington's celebrated "scum of the earth", and with native Canadian troops more or less regularly from 1870 to 1891. Following a subsequent period of decline and partial ruin, it was extensively restored, and in 1938 was opened to the public.

The Fort Henry guard with full dress uniform of the British redcoat in 1867 and the museums show articles of the 1812

period of war. The fort also contains a bakery and kitchen which still bakes bread, and a tailor and leather-maker for the uniforms. Daily military displays are provided. Sentry changes take place every hour on the half hour and gun salutes using the 24 pounder gun, 11:00 a.m., 1:00 p.m., 3:00 p.m. and 5:00 p.m. On June 15th (Labour Day) only, the drum and/or infantry and artillery drill put on a display throughout the day. Full ceremonial retreat every Wednesday and Saturday evening during July and August.

Other: A publication booklet, "Old Fort Henry, the Citadel of Upper Canada", is available from the St. Lawrence Parks Commission Office. A pamphlet, **Old Fort Henry**, is also available. The best current source of information, however, is the Old Fort Henry Newsletter, available by contacting Ms. Janet Moffatt, P.O. Box 740, Morrisburg, Ontario K0C 1X0.

IX Federal Lands

Bellevue House National Historic Park (Parks Canada)

Location: In the City of Kingston on Centre Street just north of the junction of Centre Street and King Street West.

Features: Bellevue House owes its fame to the fact that John A. MacDonald, who later became Canada's first Prime Minister, lived here for a year in 1848-49. Even without its illustrious tenant, the villa is of historical interest as an expression of the affluence that accompanied Kingston's short-lived boom in the early 1840s.

The Rideau Canal (Parks Canada)

(See Leeds and Grenville Counties).

Cedar and Milton Islands (St. Lawrence Island National Park)

(See Leeds and Grenville Counties).

REFERENCES:

- 1) *The Cataraqui Region Conservation Authority*, R.R. 1, Glenburnie, Ontario K0K 1S0. Telephone (613) 546-9965.
- 2) *The Mississippi Valley Conservation Authority*, Box 419, Carleton Place, Ontario K0A 1J0. Telephone (613) 257-4272.
- 3) *The Napanee Region Conservation Authority*, Box, 205, 174 Robinson Street, Napanee, Ontario K7R 3M3. Telephone (613) 354-3312.
- 4) *The Rideau Valley Conservation Authority*, Box 599, Mill Street, Manotick, Ontario K0A 2N0. Telephone (613) 692-3571.
- 5) *Napanee District Office, Ministry of Natural Resources*, P.O. Box 3040, Napanee, Ontario K7R 3M8. Telephone (613) 354-2173.

Hastings County

6) *Tweed District, Ministry of Natural Resources*, 265 Metcalfe Street, Tweed, Ontario K0K 3J0. Telephone (613) 478-2330.

7) *The St. Lawrence Parks Commission*, P.O. Box 740, Morrisburg, Ontario K0C 1X0.

FEDERAL REFERENCES:

1) *Parks Canada*, Ministry of Indian and Northern Affairs, Ottawa.

2) *Rideau Canal*, Southern Division Office, 12 Maple Avenue North, Smith's Falls, Ontario K7A 1Z5. Telephone (613) 283-5170.

3) *St. Lawrence Island's National Park*, c/o The Superintendent, Mr. F. Trembley, R.R. No. 3, Mallorytown, Ontario K0E 1R0. Telephone (613) 923-5241.

I Conservation Authority Lands

(i) CONSERVATION AREAS (Developed)

The O'Hara Mill (Moir River Conservation Authority)

Location: West from Madoc on Highway 7 for one mile. Turn north for 1.5 miles and then west for one mile.

Features: 86 acres of gently rolling land with two intermittent creeks and a pond. Vegetation cover includes cedar hardwoods, white pine plantation and sugar maples.

Nature Trails: One trail runs around the mill-pond and another loop trail goes upstream on a small creek. There is a trail guide to edible wild plants.

Nature Interpretation Program: None is available, but pond studies are of value.

Conservation Demonstration: A plantation.

Historic Site: A sawmill with a frame saw cover, pioneer house, school house, carpenter shop, display of old tools and machinery.

Other: A master plan is available for this area for further information. A pamphlet is available for this area.

Plainfield Conservation Area (Moir River Conservation Authority)

Location: Take Highway 37 from Belleville and then go east of Concession Road 6 for 1.5 miles. The area is on the north side of the road and on the south side of the Moira River.

Features: 141.5 acres containing a unique swamp and bog area located between two drumlins. Intermittent streams feed the bog which forms part of a sensitive area. There is heavy undergrowth on the flooded shoreline. The area is adjacent to agreement forest which is located on the south side of the road.

Nature Trails: Yes.

Nature Interpretation Program: The H.R. Frink Outdoor Education Centre is located here and owned by the Hastings Board of Education.

Historic Site: Old farmland.

Other: Open on weekends to the public. A master plan is available for further information.

The Price Conservation Area (Moir River Conservation Authority)

Location: On the south side of Highway 7, 0.25 mile west of Actinolite.

Features: 22 acres of rugged Canadian Shield topography on the Skootamata River. Tree cover includes hardwoods such as maple, poplar, birch and elm. There is also a small pond and a series of rapids on the river.

Nature Trails: None exist, but there is a bridge across the river.

Nature Interpretation Program: None is available. However,

the area is suitable for tree identification and study, river studies and fishing.

Conservation Demonstration: A pine plantation.

Historic Site: Above the upper pool in the river lie the remains of a 19th century hammer mill. There are also old gold mines and shafts near the area.

Other: A master plan and preliminary report are available for further information.

Sager Conservation Area (Lower Trent Region Conservation Authority)

Location: Go north from Frankford on Highway 33 for four miles and then east to Oakhill Road for one mile and then south for one mile to the area.

Features: 46.5 acres of flat to hilly terrain. The main portion of the area is a glacial feature known as Oak Lake Island; this is a series of large drumlins that formed an island in glacial Lake Iroquois. Two miles north of the area is a remnant of Lake Iroquois, Oak Lake, which was trapped by beach deposits laid down by Lake Iroquois. The south side of the drumlin at Sager is very steep and represents the shore cliffs of Lake Iroquois. Here, good examples of boulder pavement produced by wave action are found. The north side of the drumlin is sandy and contains beach deposits. The predominant vegetation is mixed hardwoods with pin and scrub oaks predominating. There is also considerable occurrence of aspen, birch and cherry. White pine and some planted red pine are the most frequently occurring conifers. Shrubs are presently dominated by staghorn sumach. There are also dogwoods and viburnums on the upland areas. The area contains a lookout point over the Lower Trent Valley.

Nature Trails: There is a one-loop trail suitable for hiking and the Quinte-Hastings Trail crosses the property from Belleville.

Nature Interpretation Program: Glacial and geomorphic studies. Wildlife habitat in terms of food and cover is in relatively good condition. Wildlife consists of small upland mammals and game birds and songbirds. There is also some use of the property by white-tail deer. The area can be divided into two physiographic zones:

- (1) the drumlin area;
- (2) the sand plain area.

Both the drumlin and sand plain areas can be further subdivided into wooded and open grassland zones.

Conservation Demonstration: Slope stabilization and shrub plots.

Other: Tobogganing.

The Glen Miller Conservation Area (Lower Trent River Conservation Authority)

Location: Take Sidney Street out of Trenton and go one mile past the railway tracks on the outskirts. Or, exit Highway 401

at Interchange 89 and go north for 0.25 mile. The area is located on the east side of the Trent River.

Features: 10 acres in the form of a flat and narrow strip of land with a grass cover and a few trees. Boat launching facilities.

The Colonel Roscoe Vanderwater Conservation Area (Moir River Conservation Authority)

Location: From Belleville, travel 17 miles north of Highway 37, then two miles east at Thomasburg on the County Road.

Features: 616 acres with a flat flood plain around the Moira River. Steep slopes leading away from the river to an area of very rolling uplands. Natural springs which feed into a cedar grove and into a marsh. A gravel pit. Camp Saganaska (Belleville Scouts). The bedrock is limestone and this outcrops in scenic rock ledges along the Moira River where there is a boat ramp.

Nature Trails: There are three trails covering 9.5 miles along the east bank of the Moira River. These are:

- (1) The Cedar Trail;
- (2) The Uplands Trail;
- (3) The Homestead Trail.

Snowshoeing takes place along these trails in the winter.

Nature Interpretation Program: A teacher's guide is available and covers tree identification, river studies, topographic studies, soil profiles, decay studies, etc. The area is good for wildlife such as game, birds and small mammals, but limited for waterfowl. There is a wide variety of habitat.

Conservation Demonstration: Plantations were set out in the early '60s for white pine, red pine, tamarack and some deciduous such as aspen and poplar. There is a lodge in the open areas, below the gentle bluff.

Historic Site: An old homestead.

Other: Winter sports. Teacher's guide. Brochure. Master plan.

(ii) **CONSERVATION AREAS (Undeveloped)**

The Ackerman Conservation Area (Moir River Conservation Authority)

Location: On the Moira River at its junction with Highway 7, to the east of the river on the south side of the road.

Features: 25 acres of Canadian Shield topography being more rugged in the north and centre and more gentle and flat in the south. There are cedar and pine stands along the Moira River which change to a deciduous canopy on the southern back shore. There are also rapids on the Moira River and a marsh.

Nature Trails: None, but there is a canoeing stop-over.

Nature Interpretation Program: None is available, but mining and fish studies are worthwhile.

Historic Site: The old Gatling Goldmine built in 1867.

Other: A master plan is available.

Black River Conservation Area (Moir River Conservation Authority)

Location: 3.5 miles north of Highway 7 on County Road 12, on the west side of the road on the Black River. There is no sign, but the conservation area is inland of the agreement forest.

Features: 50 acres of Canadian Shield topography.

Nature Interpretation Program: None is available, but tree identification and fish studies are worthwhile.

Callaghan's Rapids (Crowe Valley Conservation Authority)

Location: Take Highway 14 north from Belleville to Marmora and then west on Highway 7 for three miles to Tiffen Road, then south 2.5 miles to the junction and then turn left and go to the end of the road. Access is best by canoe.

Features: 391 acres of wilderness area with one mile of river, large forested islands and a series of rapids and small islands over limestone terraces (20- to 30-foot drop). The limestone is in bands from six inches to six feet high and forms bluffs. Otherwise, the topography is generally flat with a forest cover.

Nature Trails: It is a good hiking area, but there is only one cut trail. General access is best from Marmora with public access at the Legion ballpark.

Nature Interpretation Program: None is available. There are solution caves and fissures in limestone where fossils may be found. The area was burned over many years ago and is now an excellent site for succession studies. It is an excellent wildlife habitat. Tree species include aspen, white spruce, balsam fir, red oak, basswood, white pine, red and white cedar, silver and sugar maple. There is a variety of habitats from the bare limestone plain to the climax forest. Rare plants include walking ferns in the limestone fissures and yellow lady's slippers orchids. The main island has good potential for being a deer yard.

Other: Winter activities.

Deloro Dam and Conservation Area (Moir River Conservation Authority)

Location: North of the Town of Deloro on Township Road 11, north of Highway 7.

Features: 113 acres of rolling Canadian Shield topography which slopes down to the river. A light cover of hardwood forest exists and a lake.

Nature Interpretation Program: None available. There is, however, a fair amount of wildlife including beaver, muskrat, small mammals and deer.

Conservation Demonstration: A dam for water control.

The Gut (Crowe Valley Conservation Authority)

Location: From Highway 7, take Highway 62 north to Highway 620, to Coe Hill, west to Highway 504 and then south to Lasswade. Turn east at Lasswade and travel eight miles to the bridge over the Crowe River.

Features: 400 acres of heavily forested wilderness area. There is one access road which is a logging road to a hunting camp and it runs through the west section of the property. The area contains a fissure through which the Crowe River flows for some 250 yards, the fissure being up to 100 feet deep and from 20 to 30 feet wide. A second fissure occurs further to the south.

Nature Trail: A walking trail follows the Crowe River from the bridge to the fissure. White water canoeing.

Nature Interpretation Program: Succession studies, tree identification and bird studies are suitable for this area.

The Keating Property (Lower Trent River Conservation Authority)

Location: From Frankford, go north on Highway 33 for four miles and then turn west to the hamlet of Glen Ross and then north for 0.25 mile and then west on Concession Road 9 to Wilson Island (or Anderson Island).

Features: 600 acres being mostly marsh on an island in the Trent River. The property covers one-third of the island and also contains old farms, fields and hardwood forest on generally flat topography.

Nature Interpretation Program: Marsh and river studies are suitable.

Kingsmill Conservation Area (Lower Trent Valley Conservation Authority)

Location: Go west from Sterling on County Road 8 for four miles, then north on County Road 8A for two miles to Squire's Creek.

Features: 60 acres of flat to rolling limestone plain. This portion of the river valley is part of a pre-glacial drainage system, the valley being quite flat and steep-sided in this area. There is a long, narrow ridge that dissects the property that is oriented in the direction of glacial movement shown by the surrounding drumlins. There is a drumlin on the southeast side of the property. The area is mostly wet and tree cover includes white cedar, silver maple and black ash while basswood, cedar and silver maple are regenerating in the areas of dead and diseased elms. There is also a considerable cover of shrubs such as sumach, dogwood, wild grape, elderberry and prickly ash.

Nature Interpretation Program: The area can be divided into three wildlife units:

- (1) marshland;
- (2) marshland/upland interface;
- (3) upland area.

The area is suited to waterfowl nesting, marsh studies and

pond studies. Geomorphic and glacial studies.

Conservation Demonstration: Wildlife management for nesting on the islands, and holding pens as winter shelter for geese and swans.

Historic Site: A grist mill and sawmill reflect the early settlement of the area, and Kingsmill was constructed around the year 1823. The architecture is interesting in that it combines a wooden superstructure with stonework. The mill was waterpowered by horizontal turbines.

Madoc (Whytock) Conservation Area (Moira River Conservation Authority)

Location: At the junction of Highway 62 and Highway 7 in Madoc. Enter from Queen Victoria Street from the east or Lawrence Avenue from the south.

Features: 85 acres of flat to rugged limestone topography covered with open areas and scrub. The Deer Creek is on the eastern edge of the property, a marsh in the northwest corner and reeds along its shoreline.

Nature Interpretation Program: None is available, but there is a good observation point at some 609 feet above sea level.

Historic Site: Previously, there was a farm with two barns; the old farm remaining in the open part of the area. There is an abandoned railway right of way.

Quinte (Potter Property) Conservation Area (Moira River Conservation Authority)

Location: At the junction of Highway 2 and Wallbridge Loyalist Road.

Features: 340 acres of level frontage on the Bay of Quinte. 10 acres have been developed as a picnic area, but the property serves mainly as a buffer between Belleville and Trenton. A creek.

Sidney Conservation Area (Moira River Conservation Authority)

Location: Take Highway 14 north from Belleville and four miles south of Sterling, go west on the Township Road (the first road south of Oak Lake Township Road).

Features: 53 acres of gently rolling limestone topography containing two creeks and bordered by a drumlin and morainic hills. There is a reforested pine area of alfalfa fields and dead trees in the backlands.

Nature Interpretation Program: None is available, but there is a wide variety of flora, as well as amphibians, reptiles, mammals and birds. Mosquitoes and deer flies are common.

Conservation Demonstration: The area was planted in 1942 to 1944 and then in 1950 to 1952 with species such as red, white, jack and scotch pines, white and Norway spruce, European and Japanese larch, black walnut, white cedar, red maple, white birch, black cherry, hemlock, balsam fir

and multiflora rose. The remainder of the area is in natural hardwoods and evergreens.

Historic Site: Recently used by the Ministry of Agriculture as an experimental area (field station) of the former Entomological Research Institute. Radioactive disposal area (safe).

Other: Cross-country skiing. Flora and Fauna guide booklet. Master plan. Quinte field naturalists also use this area.

(iii) CONSERVATION AUTHORITY AGREEMENT FORESTS

Crowe Valley Agreement Forest (Marmora Township)

Location: Take Cordova Road (Hastings County Road 3) north and west from Marmora to Cordova Mines for five to six miles. Access is poor, but there is a trail off County Road 3 that runs through the forest to the south.

Features: The forest comprises approximately 224 acres of which 182 acres are productive forest land. The forest consists of 18 acres of white pine plantation, the remaining being in poplar, hard maple, basswood, etc. There are 14 acres of swamp. The purpose of the forest is to protect the water storage area, to provide forest products, recreation, educational opportunities, hunting and fishing areas.

Nature Interpretation Program: The area supports a small number of deer as well as grouse and rabbit populations. A variety of stands provides habitats for many of the birds and mammals found in the region.

Conservation Demonstration: Reforestation for timber production; part of the area was an old farm — grazing.

Other: Winter activities.

Moira River Agreement Forest

Elzevir Township

3,362 acres of rolling Canadian Shield topography.

Hungerford Township

8,870 acres of level, limestone plain with outcrops and fissures in the rocks.

The above two townships, together with various other smaller townships, contain the Moira River Conservation Authority Agreement Forest which covers almost 16,000 acres of Hastings County. The forest contains 3,500 acres of plantation which includes red and white pines and spruce; 8,200 acres of natural forest containing conifers and hardwoods; 365 acres of water; 1,900 acres of swamp; and 1,300 acres of open areas. The forest was established in the early '50s. Examples of hand planting, machine planting, thinning of plantations, pruning, logging in natural stands, and insect control may be found. Research plots of jack pine were laid out on the shallow soils over the limestone plain to act as a cover. This area now contains deer, waterfowl, hackberry trees. There are rare species within the peat bog

which is now protected as a sensitive area. This is located in Concession 8, Lot 26, of Hungerford Township.

Marmora and Lake Townships

328 acres

Sidney Township

442 acres

Thurlow Township

158.2 acres

Tudor and Cashel Townships

204 acres

Tyendinaga Township

848 acres.

(iv) WATER CONTROL AREAS

The Belleville Seasonal Dam (Moira River Conservation Authority)

Location: On Highway 37 in the Town of Belleville, just south of Highway 401.

Features: One acre.

Windham Lake Reservoir (Moira River Conservation Authority)

Location: Take Highway 62 to Bannockburn and then go east on the township road through Cooper, to Lingham Lake Lodge. There is no direct access; one must walk in towards the north for five miles.

Features: 100 acres of Canadian Shield topography, being set in an area of crown land. The reservoir covers 2,130 acres and there is also a shallow lake with many islands.

Lonsdale Weir (Napaneer Conservation Authority)

Location: On the Salmon River, one mile upstream from Lonsdale; the northern limit of Tyendinaga Centennial Park.

Moira Lake Dam (Moira River Conservation Authority)

Location: At the east end of Moira Lake.

Features: A seasonal dam in an agreement forest area.

Stoco Lake Dams (Moira River Conservation Authority)

Location: In the east and west channels of the Moira River, south of Stoco Lake, just before the junction of the two channels.

Features: Two acres containing a permanent concrete weir and a seasonal dam.

(v) RESERVOIR LANDS

The Marmora Dam (Crowe Valley Conservation Authority)

Location: In the Town of Marmora, take Cordova Road North for 0.25 mile.

Features: There are seven sluice ways originally built for power generation for an old sawmill (Pearce's) and to control the level of Crowe Lake. The west bank marks the

scarp edge of the limestone plain (a vale cuesta complex) and the dam sits on Canadian Shield bedrock. There are signs of preglacial drainage on the west bank.

Historic Site: A plaque to the Marmora Ironworks (1850), which was built before Pearce's Mill (1930s). There is an old Roman Catholic church to the northwest of the dam which has been partly restored. There is an archaic Indian site northwest of the dam, 1,000 feet upstream on the west bank.

Wollaston Lake Dam (Crowe Valley Conservation Authority)

Location: East of Coe Hill, take Wollaston Lake Road (Highway 620) south for five miles to a private road sign and gate. Park here and walk in for about one mile.

Features: One sluice way on the Deer River to control lake level.

(vi) FLOOD PLAIN LANDS

The Lower Moira Greenbelt

Features: 68.4 acres of flat grassed parkland along the Moira River, south of Highway 401. (An agreement with the Town of Belleville.)

The Trenton Greenbelt (Lower Trent Region Conservation Authority)

Features: Public open space in the form of a land assembly program on the east side of Front Street on the Trent River.

(vii) CONTROL LANDS

The Thurlow Wildlife Area

Location: Take Highway 37 north from Belleville to County Road 5 and then go west for two miles to the gate access point, which is signed.

Features: 600 acres of flood plain lands on the north bank of the Moira River and around the Chrysal and No. 10 Creeks. The area contains a red maple swamp and has a drumlin in the centre.

Nature Trails: None. However, there is an access road.

Nature Interpretation Program: This is a very good wildlife area with game birds, songbirds, muskrat, beaver ponds and wood duck nesting boxes.

Conservation Demonstration: Wildlife management using high bush cranberry, Russian olive, seed crops and a summer fallow. White pines have been planted, but have not been very successful. Red pine have also been planted.

II County Agreement Forests

The County Forest in North Hastings contains approximately 200 acres. There is no agreement with the Ministry to manage the forest. The major forest areas are managed by

the Bancroft District, Ministry of Natural Resources. Crown forest covers 40% of the Bancroft District (over 250,000 acres). These are organized into operation blocks which in turn are subdivided into compartments; to date 63,000 acres have been compartmentized. A breakdown of species by groups based on the volume of standing timber (1974) is as follows: Tolerant hardwoods (maple, yellow birch, basswood, etc.), 42%; other hardwoods (poplar and white birch), 34%; red and white pine, 8%; spruce and balsam, 7%; other conifers, 6%; protection forest, 3%.

The district also contains 18 sawmills which produced 40 million board feet of lumber in 1973. There are also chip mills and a pallet mill. Of the 18 townships in the district, only three (Methuen, Burleigh and Anstruther) have a low productivity due to a high percentage of protection forest and bald rock.

Main Forest Areas:

(i) THE EGAN CREEK OPERATING BLOCK

This area shows pine management in natural stands, strip shelter wood and patch clear-cut practices which are beneficial to both white pine and wildlife. The conifers are for deer cover while maple has been encouraged and dogwood for food and cover. Clover has been planted. This is a co-operative project between fish and wildlife, and timber management. Access is by a forestry road off Highway 62, one mile south of Green Corners (6th Concession, Dugannon Township), or from Highway 500 east at Detlor.

(ii) THE HERSCHEL/MCCLURE TOWNSHIPS AND WATT LAKE OPERATING BLOCK

This area shows modified cutting techniques and clear-cuts. In the Soaking Lake Block, McClure Township, the young hardwood stands (30 to 40 years old) are having the potential crop trees released by cutting down the poor quality trees competing for sunlight and nutrients, old fields have been planted with red pine.

III Crown Lands

The crown lands of the Bancroft District cover over 480,000 acres. The area has high mineral potential except in the north and west corners. There are minerals such as uranium, tantalum, niobium, nepheline syenite, corundum, feldspar, fluorite, copper, nickel, diatomite, granite, graphite, iron ore, marble, mica, molybdenum, phosphates, sodalite and titanium. The mineral industry has been significant here since the 1880s with Coe Hill Iron Mine and Village and the Child's Mine in the Village of Bessemer.

There is an annual "Gemboree" in early August each year. For further details on this area, the following references are suggested:

The Geology and Scenery of Peterborough, Bancroft and Madoc Area, by D.F. Hewitt (1969), from The Ontario Department of Mines — Ask for Guide Book No. 3.
Muskoka and Haliburton 1615 to 1875, by F.B. Murray (1963), University of Toronto Press.
The Geology and Mineral Collecting Sites Map of the Bancroft Area, available from the Division of Mines, Ministry of Natural Resources.

Acreage of crown lands by township in the Bancroft District:

Bangor	23,786 acres
Carlow	19,735 acres
Cashel	39,316 acres
Dugannon	11,876 acres
Faraday	7,908 acres
Herschel	21,548 acres
Limerick	5,998 acres
Mayo	25,074 acres
McClure	40,120 acres
Monteagle	5,580 acres
Wicklow	29,874 acres
Wollaston	3,862 acres

Boat access points may be found on the following lakes: Mink, South and North Papineau, Bark, Kaminisgeg, Mayo, L'Amable, Banner, Farady, Baptiste, Diamond, Mephisto and Cashel. A pamphlet is available for further details.

SENSITIVE AND SPECIAL AREAS.

Carlow Township (Bancroft District)

Unique Flora and Fauna — anomalous spruce growth.
Location: Concession 10, Lot 8.

Features: This young spruce stand is located on a weakly broken plain of relatively deep sand. The moisture regime appears to be fresh to moist on the medium and coarse-textured sands. The very bushy characteristics, as well as abnormal growth development of this spruce population, warrants a detailed study as it appears to be a hybrid swarm of "picea glauca" and "picea mariana".

Dugannon Township

Eagan Shoot-York River
Location: Concession 12, Lots 11 and 12.

Features: A waterfall.

Faraday Township

Mining and Mineral Deposits — The Bancroft Road-cut.
Features: In the County of Hastings, the ancient Grenville Rocks offer to the collector many prize specimens. The Bancroft area is an internationally renowned rock

collector's paradise. Located on Highway 62, 2.5 miles north of the Town of Bancroft, is a huge rock cut on both sides of the highway. It is an extremely crumbly formation containing large masses of loose rock, vugs and small caves. The site is very popular for the collecting of the following minerals: scapolite, druzy amethyst, orthoclase, hornblende, diopside, calcite, augite, quartz and apatite.

Monteagle Township

Unique Flora and Fauna — Red pine mutation

Location: Concession 4, Lot 4.

Features: This particular pine stand is located on a moderately broken upland of shallow sands with local pockets of very shallow and some deep sands. The moisture regime varies from dry to fresh on the silty and fine-textured sands and varies from fresh to moist on the medium and coarse-textured sands.

The result of some mutative process has produced a variation in lateral stem development of the red pine (*pinus resinosa*). The lateral branches resemble the Lombardy type resulting in a spire-like crown. The branches possess tufted ends.

Crown Lands (Napanee District, Ministry of Natural Resources)

Approximately 100 acres.

Crown Lands (Tweed District, Ministry of Natural Resources)

Features: There are approximately 134,250 acres north of Highway 7 in the townships of Elzevir, Grimsthorpe, Lake, Madoc, Marmora and Tudor. These areas are composed of Canadian Shield topography, Grimsthorpe Township being of particular interest for a good demonstration area with logging, planting, scarification, strip-cutting, etc., while in Elzevir Township there are burned-over areas. There are also 2,500 acres of crown land south of Highway 7 in the townships of Hungerford and Huntingdon. This area consists of limestone plain and is mainly used for recreation purposes — hunting, fishing and trapping (beaver population very heavy).

Hastings County also contains the Crowe River canoe route (see Peterborough County for further details).

The Trent-Severn Waterway (see Peterborough County) and several public access points to lakes. (A pamphlet is available.)

The Moira Watershed Canoe Routes also use crown lands in Hastings County (pamphlet available from the Moira River Conservation Authority).

26 miles south of the eastern entrance of Algonquin Park and 23 miles north of Bancroft.

Features: A 2,000-acre recreational park, including the McKenzie Lake Park Reserve. Facilities include 60 tent and trailer sites, one hiking trail, boat launching and picnic area. Lake trout, rainbow trout, brook trout and bass fishing are good in Lake St. Peter and surrounding areas. The area has rolling Canadian Shield topography and a vegetation cover of maple, poplar, pine and other conifers. There is one small lake and 5% of the area is in wetlands.

Nature Trails: There is one hiking trail of 2.5 miles to the hermit's cabin and a loop trail of 1.5 miles included, which leads to a lookout.

Nature Interpretation Program: None is available, but the area is suitable for tree identification, good wildlife viewing and fishing.

Other: Local points of interest include the rock sites at Bancroft. For more information, contact the Park Superintendent, Lake St. Peter Provincial Park, Lake St. Peter, Ontario, telephone (613) 338-5312 (Maynooth), or during the off-season, contact the District Manager, Ministry of Natural Resources, Bancroft, Ontario, telephone 332-3940.

REFERENCES:

Crowe Valley Conservation Authority, Box 279, Havelock, Ontario K0L 1Z0, telephone (705) 778-3024.

The Lower Trent Region Conservation Authority, Box 180, Frankford, Ontario K0K 2C0, telephone (613) 398-6234.

The Moira River Conservation Authority, Box 68, Municipal Building, Cannifton, Ontario K0K 1K0, telephone (613) 968-8688.

Bancroft District, Ministry of Natural Resources, Box 500, Bancroft, Ontario K0L 1C0, telephone (613) 332-3940.

Napanee District, Ministry of Natural Resources, Napanee, Ontario K0K 2R0, telephone (613) 354-2173.

Tweed District, Ministry of Natural Resources, Metcalfe Street, Tweed, Ontario K0K 3J0, telephone (613) 478-2330.

(vii) **PROVINCIAL PARKS AND PARK RESERVES**

Lake St. Peter Provincial Park (Bancroft District, Ministry of Natural Resources)

Location: On Lake St. Peter, one mile east of Highway 127,

Lanark County

I Conservation Authority Lands

(i) CONSERVATION AREAS (Developed)

The “K” and “P” Trail (Mississippi Valley Conservation Authority)

Location: Runs from Snow Road Station to Calabogie. Follow Highway 509 to Snow Road Station, turn left and follow the gravel road for two miles.

Features: A route covering some 22 miles along an old railway bed, which runs through Canadian Shield topography, but on which a car can be used in summer. There are many lakes, a wide variety of topography, rock cuts and swamps. Rest stations. The trail is used primarily in winter for snow-mobiling.

Nature Trails: There are 22 miles of signed trail with shelters.

Nature Interpretation Program: The area is good for wildlife and suited to hiking, fishing, horseback riding and winter activities.

Conservation Demonstration: The trail is maintained and graded, and bridges have been improved.

Historic Site: This was an old railway, until the 1940s, joining Kingston with Pembroke.

The Mill of Kintail and R. Tait McKenzie Memorial (Mississippi Valley Conservation Authority)

Location: Take Highway 29 north from Almonte for two miles, turn left and follow the signs.

Features: 167 acres of rolling valley lands on the Indian River with an open to forested vegetation cover. Hardwoods are the dominant trees with maples being the most common species. There is a sandstone grist mill built in the 1830s and a refuge, which is known as the “Cloister on the Hill”. The bedrock is composed of sandstone and Precambrian formations. There are both Paleozoic formations (i.e. Nepean Sandstone) and some minor outcrops of Precambrian rock (i.e. granite) at the northern end of the conservation area.

Nature Trails: There are 1.5 miles of hiking trail which run through a stand of predominantly hardwoods in the form of a loop trail. On the trail, plant and tree species are identified by signs.

Nature Interpretation Program: Very limited.

Historic Site: The R. Tait McKenzie Memorial Museum contains sculptures and regional pioneer artifacts. McKenzie was a sculptor, athlete, physical educator and physician born in 1867 and died in 1938. The loft of the mill was McKenzie's studio and the remainder of the mill was his summer living quarters. The loft is the only part of the mill building open to the public. The mill was restored by McKenzie between 1930 and 1932. There is an old farm

adjacent to the mill property which is still active and leased at present. There is a 60-acre mature bush which teachers may use if they wish. A resource centre has been set up with a full-time curator who is available for conducting tours of the museum and the showing of the film, “Man of Kintail”. Teachers and school groups are asked to make an appointment with the curator for visits. Write to: Mr. D.G. Keddie, Administrator-Curator, Mill of Kintail Conservation Area, c/o Mississippi Valley Conservation Authority, Box 419, Carleton Place, Ontario K7C 3P5, telephone (613) 256-3610. The grounds and Museum are closed Tuesdays only. The area is open from May 1st to October 31st. At present, the area is closed during the winter but should a teacher wish to use the land for cross-country skiing/snowshoeing instruction, animal observation, etc., arrangements for access can be made by calling the Authority offices at (613) 257-4272.

Other: The Authority is now working on, and should be completing this fall, a series of teaching guides for the area. Although no resource person will be available for outdoor education programs, teachers will be encouraged to use the area.

Pakenham Bridge (Mississippi Valley Conservation Authority)

Location: Off Highway 29 at the Village of Pakenham.

Features: A hilly site covering some four acres and overlooking the Mississippi River. The vegetation consists of a plantation forest of red pine, now some 20 to 30 years old, and natural hardwoods such as willow. Limestone bedrock underlies the area, but there are no outcrops.

Nature Trail: There is a lookout and a 0.25 mile trail to the parking lot from the lookout's steps.

Nature Interpretation Program: This is a rather poor area.

Historic Site: A stone arch bridge consisting of five arches.

The Perth Wildlife Reserve (The Rideau Valley Conservation Authority)

Location: Two miles southeast of Perth off County Road 1.

Features: 423 acres of limestone plain topography of which 215 acres are actually owned, the rest being leased from the Town of Perth and used as sewage lagoons. The area is mostly flat and is bounded on the south side by Jebb's Creek; however, the area also contains four man-made ponds. There is dense vegetation near the Tay River and marsh to the south, while there is a small hardwood area on Jebbs Creek which is now flooded and covered with alder and cedar.

Nature Trails: There is a three-mile trail for which a self-guiding pamphlet is available and this takes you through Authority-owned land to observe the wildlife management demonstration, the lookout point over the Tay River marsh, a

beaver dam on Jebbs Creek, dense alder bush and brush piles.

Nature Interpretation Program: This is an excellent wildlife area with a resident Canada goose flock, ducks and various hedgerow communities. The area has a full-time superintendent who may be contacted at (613) 267-5721.

Conservation Demonstration: This is a wildlife and shrub area which is a management and demonstration project. The area is covered in grapevines, shrubs and contains wood-duck nesting boxes, underwater feeders for the spring migration, apple tree rejuvenation, corn is grown and brush piles formed. Reforestation is also taking place.

Historic Site: A restored log cabin and barn.

Other: A snowshoeing trail adjacent to Tay River marsh.

The Rideau Ferry Yacht Club (Rideau Valley Conservation Authority)

Location: From Smith's Falls, travel southwest on Highway 15 and turn off at Lombardy which is the Rideau Ferry Road. Cross the bridge at Rideau Ferry, continue for one mile and turn right for a distance of 0.5 mile.

Features: 18 acres with a 1,000-foot beach on Big Rideau Lake on which the limestone bedrock can be observed in the form of a ledge six to 10 feet high at the water's edge. There is also a boat launch, swimming beach and a building with storage facilities.

Mica Mine (Rideau Valley Conservation Authority)

Location: From Perth, take Lanark County Road 4 for five miles and then turn south on County Road 3 for four miles. Then, go east on Long Lake Road to the area which it is to the north of Murphy's Point Provincial Park.

Features: 1,077 acres of Canadian Shield topography with a light forest cover and numerous rock outcrops. Marshes are formed in the swails because of beaver activities and Mill's Lake is situated in the centre of the area.

Nature Trails: There are no trails. However, the abandoned mines are very dangerous, unmarked and the paths are poor. There is a boat launch on Long Lake at the south end of the property, which is the focal point, on Long Lake Road.

Nature Interpretation Program: Marsh and wilderness experience.

Conservation Demonstrations: The marsh is being managed for waterfowl. Reforestation has taken place and numerous wildlife management practices have been suggested, such as releasing apple trees, and cutting over-mature sumac to produce coppice growth. Woodlot improvement of white pine is taking place and wood-duck nesting boxes have been erected.

(iii) CONSERVATION AUTHORITY FOREST (Non-agreement)

Hornung Forest (Rideau Valley Conservation Authority)

Location: Take Regional Road 4 west to Montague Township to Lot 10, Concession 10 and the west half of Lot 10, Concession 9.

Features: 300 acres.

Conservation Demonstration: Reforestation and wildlife management.

(iv) WATER CONTROL AREAS

The Bennett Lake Dam (Mississippi Valley Conservation Authority)

Location: West of Fallbrook on the Fall River, which is a tributary of the Mississippi.

Features: A half acre of land with a concrete structure.

Conservation Demonstration: A dam to maintain the water level in Mississippi Lake. The lake stretches from Carleton Place to Innisville.

Carleton Place Dam (Mississippi Valley Conservation Authority)

Location: In the Town of Carleton Place.

Features: A half acre of property with a weir and dam structure some 15 feet high, built in 1973.

Conservation Demonstration: A dam to maintain the water level in the Mississippi Lake, which stretches from Carleton Place to Innisville.

The Haggart Island Dams (Rideau Valley Conservation Authority)

Location: In the Town of Perth on the Tay River, the two dams are upstream of the town park. There is a weir and a walk-way, east of Roger's Road and south of Foster Street.

Features: Two new dams (1970) replace two from 1817 that operated mills. The old dams were washed out in 1968 in a spring flood. The new dams now provide summer control over the Little Tay River and enhance the Stewart Memorial Park.

Historic Site: Dr. A. Thom built a flour mill in 1817 and sold this to Mr. J. Haggart in 1832.

Other: A pamphlet is available for further details.

Widow Lake Dam (Mississippi Valley Conservation Authority)

Location: Go north from Lanark on County Road 1 to French Line and then go west onto Widow Lake which is on the Clyde River.

Features: A half acre of property with a gabion basket construction, built in 1974.

Conservation Demonstration: A dam to maintain water level.

II County Agreement Forest

A list of Lanark County acreages by township:

Dalhousie	940 acres
Darling	1,449 acres
Drummond	50 acres
Lanark	834 acres
Lavant	2,753 acres
Montague	190 acres
Pakenham	1,000 acres
North Sherbrooke	339 acres
South Sherbrooke	470 acres
	<hr/> 8,025 acres

80% of the County forest is natural, with hardwoods being dominant. The most common species is maple. 20% is reforested open areas, but the reforested areas are mostly covered with softwoods such as red pine, white pine, spruce and cedar. Plantings began in 1938, but not on any intensive or large scale until the '50s. This carried on into the '60s. There are separate areas of reforestation dating from 19 years ago. The oldest one is in Lavant Township in large tract, most of which was natural. Here, spruce trees, etc., were planted. It has been mostly open land that has been planted since then, such as in Dalhousie Township, Lot 12, Concession 4, which is the oldest plantation of red pine, white spruce jack pine and white pine (see "Your Forests", Volume 8, No. 3, Winter 1975, regarding walks in County forest lands). Though recreation is a general purpose of reforested areas, one of the important factors in reforesting this area was that it was logged over and is now being restored. Historical evidence of this may be seen in Heron's Mill, north of Lanark, which was one of the earliest sawmills in this area, and the first mill of the Gillies brothers. Reforestation also takes place on old agricultural lands and areas of poor soil. These, together with the other areas, are now managed for timber production. Opportunities exist for school groups to visit ongoing forestry operations; usually during late fall and early winter, several ministry logging operations may be visited if requests are made several weeks in advance.

III Crown Lands

A table of crown land area by township:

Bathurst	200 acres
Beckwith	100 acres
North Burgess	3,000 acres
Dalhousie	3,750 acres
Darling	18,825 acres
Drummond	10 acres
North Elmsley	160 acres

Lanark	400 acres
Lavant	21,400 acres
Montague	375 acres
Pakenham	2,010 acres
Ramsay	250 acres
North Sherbrooke	Nil
South Sherbrooke	1,410 acres
	<hr/> 51,890 acres

or approximately 81 square miles. This represents about 6% of the land area of Lanark County. There are also 63 square miles of water area. Most of the crown land is in Lavant and Darling Townships in the northwest corner of Lanark County. This is mostly Canadian Shield topography; the edge of the Canadian Shield roughly follows the Mississippi River and then runs south to Murphy's Point Park, i.e. below Highway 7 and east of County Road No. 1 is mostly a limestone plain area. The townships that are on limestone areas are Montague, North Elmsley, Drummond, Beckwith, the south part of Pakenham and Ramsay. Pockets of limestone are also found in Bathurst Township and across the centre of the county.

The functions of crown lands are numerous, but include water access to the Rideau River and boat stop-over points. Reforestation, where the land is turned over for timber production. Marginal land being planted with red pine and spruce to provide diversity. Other functions include recreation, reforestation and wildlife habitat.

Four dams have been built by the Ministry for the purpose of stabilizing water level for cottages, and recreation on a number of lakes. These are: White Lake, Pike Lake, Clayton Lake, Ferren Lake and Ashton Lake. Boat access points which are maintained exist on the following lakes: Pike Lake, White Lake, White Lake Village, Clayton Lake, and Joe Lake. There are four others which are not maintained: Lowney Lake, Dixon Lake, Paddy Lake and Tay River. The Lanark office should be consulted as to their exact location.

III Crown Lands

Sensitive areas are also being identified such as deer yards, fish spawning grounds, historical sites, marshes, heronries, etc. A detailed listing is available at the Lanark Office in the Sensitive Areas Reports, covering the areas where fish and wildlife are productive. Some of the significant sensitive areas, several of which are publicly owned, are listed below:

1. The Ashton Swamp (Goodwood Marsh), Beckwith Township, Concessions 4 to 9, Walks 11 to 23. This is a R.V.C.A. dam proposal area. This is a good waterfowl breeding area and a migratory stop-over.
2. Peter White Lake, Darling Township, Concessions 3 and

4, Lots 13 and 14. It covers one-half square mile and can be reached by a hydro access road. The area consists of a shallow lake, marsh, and mixed forest.

3. Blueberry Marsh, Drummond Township, Concessions 3 to 6, Lots 1 to 6. Area 140 acres. Location: Two miles north of Perth.

4. Croft Lake. Access from the "K" and "P" railroad to a semi-wilderness area of one-half square mile. (M.V.C.A.)

5. A white pine stand near the Middle Branch Creek, Lavant Township, Concessions 8 and 9, Lots 24 to 26.

6. Bottle Lake, Cranberry Lake and Cranberry Creek. A two-mile waterway for wildlife extending through Lavant, Dalhousie and North Sherbrooke townships.

7. Smith's Falls Marsh (The Swail). 590 acres of marsh in Montague, North Elmsley and South Elmsley townships. This is a Typha marsh containing cattails, wild rice, water lily, arrowhead, pond weed, duck weed, coon tail and water celery. There is abundant waterfowl, but the area is under threat of urban development.

8. The Tay River Marsh, covering 1,500 acres in North Elmsley Township, is adjacent to the Perth Wildlife Reserve (R.V.C.A.).

For a complete description of these and other sensitive areas, contact the Lanark Office of the Ministry of Natural Resources. Also of interest on crown land are the old mica mines, and the iron ore mine in Lavant Township at Lavant, Long Lake.

The Rideau Trail passes through Lanark County. For further details, see Leeds and Grenville Counties. Canoe routes also exist through crown lands and conservation authority lands in Lanark County:

(1) The Tay River Canoe Route; details of which can be obtained from the Rideau Valley Conservation Authority. For further information on the R.V.C.A. please request "Around the Rideau", a monthly newsletter of the R.V.C.A.

(2) The Mississippi Canoe Route also passes through Lanark County on its way from Frontenac County to Ottawa-Carleton. Details of this can be obtained from the Mississippi Valley Conservation Authority, Box 419, Carleton Place, Ontario.

V Provincial Fish and Wildlife Management Areas

The Lavant Forest Project

This is a co-operative project between wildlife and timber cutting whereby 200 acres, or more, a year are improved for timber and promoting wildlife using clearings, clover, etc. Areas are selected for wildlife, brush piles provided and stands of trees with nuts, such as oak and beech.

Experimental plots are used such as hemlock, techniques to regenerate hemlock cover for wildlife, mature stands of aspen for grouse. The type of cut used, i.e. strip versus clear cut, decides what the best method is for the survival of deer. Some clearings are kept cut down and clover is planted. Deer need a conifer cover too, so the softwoods are not cut and corridors of cover are planted to encourage deer movement to other areas. In 1975, there were 1,350 acres of such improved land in Lanark County on all lands and 500 acres in county forest.

Wild Rice - This grows naturally and is a very good waterfowl and muskrat food. This rice is now being harvested for human consumption on a commercial basis starting in 1975 (phone Mr. I. MacLean in Ottawa at 236-8021 for further details). This operation is unique to Ontario, except for Kenora where rice is harvested for the benefit of native Indians. The harvesting is now restricted to portions of the Mississippi Lake and Mississippi River. The Wild Rice Harvesting Act (Provincial) should be consulted.

VII Provincial Parks and Park Reserves

Kilmarnock Park Reserve

Location: On the Rideau River, two miles west of Merrickville and south of the Village of Kilmarnock on River Road which is one mile south of Highway 43.

Features: 65 acres of flat to undulating land with a shallow soil overlying limestone bedrock. The land has been mostly cleared for fields and pasture, but small, white cedar woodlots still exist, and a large, marshy area extends from the shoreline. There is access to the Rideau River.

Nature Trails: There are no nature trails, but there is vehicle access to the area, but no boat launch.

Nature Interpretation Program: Waterfowl.

The Mouth of the Tay Park Reserve

Location: On the Rideau River near Port Elmsley between Smith's Falls and Perth, just off Highway 43. There is no public access by vehicle.

Features: 150 acres of flat, low-lying land covered in pasture, open fields, bush, mixed hardwoods including maple and an old sugarbush. The soils are shallow and the area is marshy along the shoreline.

Nature Trails: None, but there is boat access to the Rideau, the Tay and a sandy beach.

Nature Interpretation Program: The area is good for waterfowl nesting and migration, but poor for wildlife, containing only some small mammals.

Historic Site: An old sugar camp and possible Indian routes.

Murphy's Point Provincial Park

Location: 14 miles south and west of Perth, go south on County Road 1 to Elm Grove Road and then seven miles west to the park on Big Rideau Lake.

Features: 2,900 acres containing rough, ridged land on the edge of the Canadian Shield, with only limited level areas. Vegetation cover includes mixed hardwoods, conifers on the Rideau shoreline, sugar maple is dominant, also beech and basswood; old pasture, ponds and bare rock. The Black Creek and a few small streams flow through the area. At the "Rocky Narrows", one may observe granite boulders embedded in the limestone. Indeed, one may observe nine different types of rock, the main ones being gneiss, quartzite and pegmatite. Limestone is the bedrock to the south of this area.

Nature Trails: No real trail system has been developed yet, but the Rideau Trail does run through this area. There are 10 miles of cross-country ski trail and some cut paths.

Nature Interpretation Program: The theme for this park is one of small scale, south Canadian Shield mining, e.g. mica, phlogophyte, phosphate (apatite), etc. 429 vascular plants have been identified in this park which also contains the threatened species of black rat snakes, a small deer yard, a heronry and beaver ponds. Relating fauna to the habitat is a secondary theme for this area. There is no hunting.

Conservation Demonstration: None that can be observed. The area is covered in second growth forest, after the original homesteaders cleared the land.

Historic Site: Mines dating from the 1860s onward. An old sawmill, 1880, and its remains can be seen on the mouth of the Black Creek. Two old homesteads dating from the original settlement to 1821. The farming and logging history could also be a subject of interpretation for this area.

Other: The plans are to have this park open to the public for 1977/1978 and as such, there is no superintendent at the present time and all enquiries about this natural environment park should be directed to the Lanark District Office of the Ministry of Natural Resources.

Silver Lake Provincial Park

Location: North of Highway 7 and west of Maberly at the east end of Silver Lake.

Features: 76 acres of rolling and rugged Canadian Shield topography. Vegetation cover consists of hardwoods, such as the hard maple, and swamp areas along the creek, which runs into the Fall River. There is also a swamp to the east of the property, as well as a lake and a sand beach being found within the area.

Nature Trails: There is 0.25 mile of marked and self-guiding trail which contains a swamp trail, boardwalk and interpretive exhibit at the comfort station.

Nature Interpretation Program: A general program exists of

films and slides which are shown by the interpreter from June 15th to August 31st.

Other: Winter activities. Lanark will lead tours to Sharbot Lake Fish Hatchery from this area, upon request.

IX Federal Lands

McEwen's Bay Bird Sanctuary

Location: Take Highway 7 east from Perth for eight miles and it is on the south side of the road on Mississippi Lake. Drummond Township, Concessions 8 to 10, Lots 18 to 23.

Features: Marshland surrounded by forest and open fields with migratory waterfowl on Mississippi Lake. This natural wildlife area covers one square mile and is managed by the Canadian Wildlife Service.

The Rideau Canal

(See Leeds and Grenville for further details)

REFERENCES:

- 1) *Lanark District Office, Ministry of Natural Resources*, Box 239, Lanark, Ontario K0G 1K0. Telephone (613) 259-2108.
- 2) *The Mississippi Valley Conservation Authority*, Box 419, Carleton Place, Ontario K7C 3P5. Telephone (613) 257-4272.
- 3) *The Rideau Valley Conservation Authority*, Box 599, Mill Street, Manotick, Ontario K0A 2N0. Telephone (613) 692-3571.
- 4) *The Rideau Canal Southern Division Office*, 12 Maple Avenue North, Smith's Falls, Ontario K7A 1Z5. Telephone (613) 283-5170.

Lennox and Addington Counties

I Conservation Authority Lands

(i) CONSERVATION AREAS (Developed)

The Flinton Conservation Area (Moirá River Conservation Authority)

Location: From Highway 7, go five miles north on Highway 41 then three miles west on the County Road to Flinton.

Features: 3.5 acres of flat grassland on the Skootamatta River.

Nature Trails: On a canoe route.

Nature Interpretation Program: Fishing.

Conservation Demonstration: A dam with a 71 acre-foot capacity which has been partly damaged, and beside which there was an old mill.

Forest Mills Conservation Area (Napanee Region Conservation Authority)

Location: Eight miles north of Napanee on Highway 41, turn west and go about three miles; the area is situated on the east bank of the Salmon River in the Village of Forest Mills.

Features: Seven acres of generally flat rocky ground (limestone) with a mixed cover of trees and bushes. There is also a small beach where fishing could take place and downstream of the site there are waterfalls flowing over the limestone bedrock. The Authority has installed picnic, parking and toilet facilities. Good example of flood plain land — unsuited for development.

Historic Site: There are two old grist mills, one mill being one of the earliest in Ontario, situated downstream from the conservation area. This is still in fair condition; and there are remains of another mill.

Newburgh Conservation Area (Napanee Region Conservation Authority)

Location: On the Napanee River in the Village of Newburgh, seven miles northeast of Napanee.

Features: 4.75 acres of flat grassland with two waterfalls and a gorge cutting through limestone bedrock located in the southeast corner.

Napanee Conservation Area (Napanee Region Conservation Authority)

Location: On the south bank of the Napanee River, in the Town of Napanee.

Features: Eight acres of high ground and flood plain land with a small wooded area. A boat docking facility and shoreline picnic area is under development (for completion in '78). Bank repair and protection works using rip-rap and gabions are demonstrated here. Good example of flood plain use (for greenbelt purposes).

Napanee Greenbelt (Napanee Region Conservation Authority)

Location: Junction of Highway 401 with Palace Road.

Features: 18.9 acres including five acres of flat grassland on the Napanee River.

Conservation Demonstration: A plantation of red and white pine together with some silver maple planted in 1976. Good example of flood plain use (open space).

(ii) CONSERVATION AREAS (Undeveloped)

The Belleville-Yardmen Conservation Area (Moirá River Conservation Authority)

Location: Seven miles south of Kaladar on Highway 41.

Features: 1,152 acres of Canadian Shield topography covered with a light forest of white pine and oak, and containing four lakes: Little Mellon Lake, Mellon Lake, Hailey Lake, Dense Lake and Mellon Creek.

Nature Trails: Marked trails have been laid out.

Nature Interpretation Program: None is available. The area is, however, good for wildlife such as beaver, otter, muskrat and deer, as well as being the site of a rare cactus.

Hay Bay Boat Ramp (Catawaqui Region Conservation Authority)

Location: From Adolphustown on Highway 33, travel north for three miles on the County road to Hay Bay (Bay of Quinte waterway).

Features: A boat ramp and one acre of land with 200 feet of frontage on Lake Ontario.

Historic Site: Adjacent to an 18th century church.

Napanee Conservation Authority Greenbelt (Napanee Region Conservation Authority)

Location: Junction of Highway 401 with Palace Road.

Features: Five acres of flat grassland on the Napanee River.

Conservation Demonstration: A plantation of red and white pine together with some silver maple planted in 1976.

(iii) CONSERVATION AUTHORITY AGREEMENT FORESTS

North Fredericksburgh Township (Catawaqui Region Conservation Authority)

Location: Lot 24, Concession 6.

Features: 84 acres of agreement forest known also as the Clancy Property. (For more information, see Leeds and Grenville County).

Kaladar Township Agreement Forest (Moirá River Conservation Authority)

Location: West of Highway 41, five to six miles north of Flinton.

Features: 507 acres of rolling Canadian Shield topography. The area consists of 25 acres of plantation and 482 acres of a natural stand of poplar, which also includes 20 acres of protection forest and eight acres of swamp.

Nature Interpretation Program: Timber production.

Conservation Demonstration: This area was acquired in the '50s and planted in the early '60s. It has not been thinned. The area does contain beaver flats and this poses a problem as the water area is expanding.

Sheffield Township Agreement Forest (Moir River Conservation Authority)

Location: Near Erinsville on Highway 41, south of Highway 7.

Features: 417 acres of limestone plain. The property contains 200 acres of white pine plantation, 100 acres of natural hardwood stand, six acres of water and 59 acres of swamp.

Nature Interpretation Program: Old agricultural lands and timber production. The area is good for wildlife and contains deer. It also has native cactus. (For more information, contact the Resource Manager, The Moira River Authority Office.)

Conservation Demonstration: This area was acquired in the '50s and planted in the early '60s. It has not been thinned, but it has been weevil-clipped in the white pine areas due to the insect problem.

Historic Site: Old foundations of the homestead and the barn.

There are also 200 acres of agreement forest in Sheffield Township that are owned by the Napanee Region Conservation Authority and managed by the Tweed District of the Ministry of Natural Resources.

(iv) WATER CONTROL AREAS

Deer Rock Reservoir (Moir River Conservation Authority)

Location: In the west half of Lot 30, Concession 4; east half of Lot 29 and part of east half of Lot 30, Concession 4, Kaladar Township. The property is located to the west of Flinton.

Features: 1,585 acres (leased land). At a water level of 850 feet, the storage capacity is 6,280 acre-feet. The surface area of the water covers 933 acres with a maximum depth of 19 feet and a mean depth of 7.3 feet. There are facilities for boat launching and the fishing of northern pike and small mouth bass.

Laraby Rapids Dam (Napanee Region Conservation Authority)

Location: 0.5 mile downstream from the outlet of Beaver Lake, and 2.5 miles northeast of Tamworth, in Sheffield Township.

Features: Built in June, 1975. Controls and maintains the level of Beaver Lake. No public access!

Napanee River Erosion Control Works (Napanee Region Conservation Authority)

Location: At Springside Park in Napanee.

Features: Land is owned by municipality but one may observe gabion work, weirs and groynes used to prevent erosion along the Napanee River.

Varty Lake Dam (Napanee Region Conservation Authority)

Location: At the outlet of Varty Lake into Varty Creek in the Township of Camden East. Northwest of Yarker hamlet and south of Moscow hamlet.

Features: Maintains level of Varty Lake (1,500 acres). Good example of conflict between cottage/recreational use, flood control objectives, downstream agricultural needs and indiscriminate lakeshore development. Year of construction: 1972. ACCESS IS RESTRICTED - CONTACT AUTHORITY OFFICE.

Wood's Dam (Napanee Region Conservation Authority)

Location: Follow Highway 41 to the hamlet of Roblin and then southwest on the Richmond Township Road, just outside of Roblin.

Features: An old mill dam on the Salmon River for the purpose of local ground water re-charge.

(v) RESERVOIR LANDS

Colebrook Dam (Napanee Region Conservation Authority)

Location: In the hamlet of Colebrook on the Napanee River.

Features: Scenic picnic site on bank.

Historic Site: The dam was built around 1900. It was once the site of a sawmill, grist mill and pump turnery. The dam was washed out in 1965. It was repaired in 1966 to maintain the water table for the wells of local residents.

II County Agreement Forests

Kaladar Township Forest (Tweed District, Ministry of Natural Resources)

Location: Follow Highway 41 north to Flinton Road and then go southwest to the properties.

Features: 1,200 acres of blow-sand areas that were previously agricultural fields. The topography is gently rolling Canadian Shield terrain and consists of five acres purchased over a period of years from 1950 to 1962. This area contains the headwaters of the Moira River, Skootamatta River and local drainage of the Flinton and Beaver Creeks. There are natural stands of maple, poplar, red maple, hemlock, spruce and balsam fir.

Conservation Demonstration: The dominant tree is red pine, then white spruce, Norway spruce, white pine, as well as some mixed planting; pure stands include Carolina poplar and jack pine. Planting began in 1927 at Flinton and continues to the present day. The plantation covers 450 acres. A forest management program is continuing here, thinning and pruning the trees. The reforestation area covers 600 acres, with 102 acres of protection forest and four acres of water. There is a research plot at Flinton where hardwoods are grown under pines (maple, basswood and oak).

Historic Site: Foundations of old homesteads.

There is also forest managed by the Bancroft District of the Ministry of Natural Resources. The main forest is the Ashby Operating Block. While this is not an active area, modified cutting techniques and plantations can be observed.

III Crown Lands

The Crown lands of the Bancroft District cover 31,000 acres in Ashby Township (including 11,100 acres of water) and 16,800 acres in Effingham Township (including 2,960 acres of water). The main function of these Crown lands is primarily for timber production, then fish and wildlife management and recreation. A sensitive areas report has been completed by the Bancroft District that also covers mineral sites in this area. There is a boat access point in Weslemkoon Lake.

In the Napanee District of Lennox and Addington, there are 2,970 acres managed by the Napanee District, Ministry of Natural Resources. This includes a recreational quarry at Interchange No. 95 on Highway 401, in Richmond Township; this is for the purpose of swimming and fishing. The Crown lands in the Tweed District cover 208,316 acres. Two canoe routes also pass through Lennox and Addington Crown lands:

- (i) the Moira River canoe route (Moira River Conservation Authority). See Hastings County for further details.
- (ii) the Mississippi River canoe routes. These extend from Mazinaw Lake near Bon Echo Provincial Park to the Ottawa River. (See Lanark and Frontenac Counties and Ottawa-Carleton Region for further details.)

V Provincial Fish and Wildlife Management Areas

Camden Lake Wildlife Management Area

Location: Exit at Interchange No. 98 from Highway 401 and go north through Camden East and follow the sign on the road to the east (2.5 miles south of Centreville).

Features: 1,700 acres of water in the form of a shallow lake, the maximum depth of 12 feet. 1,400 acres of flood farmland where open fields dominate the vegetation cover, but also includes a woodlot, marsh and cattails. There is a viewing stand and road access to the observation tower.

Nature Interpretation Program: Waterfowl.

Conservation Demonstration: Wildlife management - geese.

Historic Site: This is an old settlement area for example, the historic site in the Village of Desmond.

VII Provincial Parks and Park Reserves

Bon Echo Provincial Park (Tweed District, Ministry of Natural Resources)

Location: Six miles north of Cloyne on Highway 41 in the Village of Bon Echo.

Features: 16,417 acres of natural environment park on Canadian Shield terrain with 10 major lakes and numerous smaller water bodies. The rough terrain is faulted, forming scarps and hilly areas. Mixed hardwoods are dominant, but softwoods are found to almost the same extent throughout the park. 2,300 feet of beach. A focal point in the park is Bon Echo Rock, the 375 foot granite cliff which towers above Mazinaw Lake.

Nature Trails: These include:

- (i) The Shield Trail - three miles, a pamphlet is available.
- (ii) The High Pines Trail - one mile.
- (iii) The Abes and Essens Hiking Trail - leaflet is available. It covers 14 miles with five over-night camp stops. There are 80 miles of snowmobile trails for which a pamphlet is available. 15 miles of cross-country ski trail are also planned.

There are also two canoe routes:

- (i) the Kishkebus canoe route - contained within the park's boundaries.
- (ii) the Mississippi River canoe route, which is a four-day, 60-mile route extending beyond the park.

Nature Interpretation Program: There are internally guided hikes, a children's program, and self-guiding trails. An amphitheatre has been set out in a natural hollow in the pines and has a capacity of 1,000 people. Here on Wednesdays, Fridays and Saturdays, slides and films are shown and speakers presented throughout the summer.

The park has three types of camping:

- (a) the regular tent and trailer area which has no hydro;
- (b) the Hardwood Hill Campgrounds, a wilderness atmosphere with tents only. Capacity, 100;

Northumberland County

(c) the Joe Perry Lake Area for true wilderness camping with 25 sites. Access is by canoe only.

Conservation Demonstration: The central woodyard and central garbage system are of interest.

Historic Site: There are old mines which are located outside of the park. For further information, contact Visitor Services, (613) 336-2228 (Peter Neugebauer, Visitor Service Programmer). There are also Indian pictographs and archeological work is ongoing.

Other: The park uses the pre-registration system for camping.

VIII Parkway Commission Lands

Adolphustown Park (St. Lawrence Parks Commission)

Location: Follow Highway 41 south from Highway 401 to Highway 33 and then go west to the park.

Features: 70 acres of flat, grassed area used to be an old apple orchard and is now covered in ornamental trees. There are visitor services available, a boat launch and a small museum.

nature Interpretation Program: St. Lawrence Seaway.

Historic Site: United Empire Loyalist cemetery. This is also an annual commemorative service place as the landing place of the United Empire Loyalists.

Fairfield Park (St. Lawrence Parks Commission)

Location: West of Collins Bay, near Odessa, on Highway 33.

Features: A seven-acre day-use area.

REFERENCES:

1) *The Cataraqui Region Conservation Authority*, R.R. No. 1, Glenburnie, Ontario K0H 1S0. Telephone (613) 546-9965.

2) *Moir River Conservation Authority*, 308 North Front Street, Belleville, Ontario K8P 3C4. Telephone (613) 968-3434.

3) *Napanee Region Conservation Authority*, Box 205, 174 Robinson Street, Napanee, Ontario. Telephone (613) 354-3312.

4) *Bancroft District, Ministry of Natural Resources*, Box 500, Bancroft, Ontario K0L 1C0. Telephone (613) 332-3940.

5) *Napanee District, Ministry of Natural Resources*, Napanee, Ontario K0K 2R0. Telephone (613) 354-2173.

6) *Tweed District, Ministry of Natural Resources*, Metcalfe Street, Tweed, Ontario K0K 3J0. Telephone (613) 478-2330.

7) *The St. Lawrence Parks Commission*, P.O. Box 740, Morrisburg, Ontario. Telephone (613) 543-2951 or Historic Sites, 543-2911.

I Conservation Authority Lands

(i) CONSERVATION AREAS (Developed)

Alnwick Conservation Area (Lower Trent Region Conservation Authority)

Location: Take Highway 45 to Alderville and then take County Road 18 west for five miles.

Features: 3.5 acres of property in an interesting historical and cultural area; an old railway line. The lake contains "reversed" drumlins which form islands; there is a good lookout point on the property overlooking Rice Lake.

Nature Interpretation Program: Glacial studies.

Ball's Mill Conservation Area (Ganaraska Region Conservation Authority)

Location: On Highway 45 in the Village of Baltimore, five miles north of Cobourg.

Features: 38 acres of valleyland on Baltimore Creek. The area includes the old grist and saw mill and 0.25 mile of raceways, a dam and headpond.

Nature Trails: Walking trails from parking lot to the mill, dam and along the raceways.

Nature Interpretation Program: None available but potential along the creek and around the headpond.

Historical Site: The mill was built in 1834 and was the first in the area to pay cash for wheat. In 1884, John Ball bought the mill and it operated until 1971 in the family, when the Ganaraska Conservation Authority purchased it. A sawmill provided lumber for the manufacturing of apple barrels.

Cobourg Conservation Area (Ganaraska Region Conservation Authority)

Location: In the northeast part of the Town of Cobourg at the United County Buildings on Highway 2.

Features: 30 acres of grassed property at the junction of the east and west branches of Factory Creek. There is a stand of cedar and some willows below the fork in the creek.

Nature Trails: Hiking with a foot-bridge over the west branch of the creek.

Nature Interpretation Program: None available. However, this is a good wildlife area, particularly the islands in the creek. The swans in the Cobourg Conservation Area are descendants of twelve royal swans, donated to the City of Ottawa as a Centennial gift by Her Majesty, The Queen, in 1967.

Conservation Demonstration: New trees were planted but there are some 15- to 20-year-old trees on the property. A recently constructed dam creates a small pond inhabited by ducks.

Historic Site: A cairn commemorating the opening of the area by Her Majesty, The Queen, in 1973.

Other: A baseball diamond and soccer pitch.

Crowe Bridge Conservation Area (Crowe Valley Conservation Authority)

Location: Travel 4.5 miles north of Campbellford via Northumberland County Road 38 to Petherwick Corners, then north on Seymour Township Side Road 20 for two miles.

Features: A 26-acre area bisected by the Township Road; day-use to the south and camping to the north where there is a 2,000-foot shoreline on the Crowe River. The area is mostly a broad flood plain undulating at the north end, gently sloping towards the river and containing limestone outcrops. Rapids. A weir is found at the south end of the property. Drilled well. Vegetation cover is dominantly maple and oak with a mature cover of spruce and pine.

Nature Trails: Hiking - a scenic trail system along the river bank where there are numerous rock outcrops.

Nature Interpretation Program: None is available and the area is rather poor for wildlife. There is a 50% tree cover of mixed hardwoods.

Historic Site: The Crowe Bridge weir was left over from the Trent Authority (power and navigation) and was erected to measure the inflow to the Trent system.

Other: The rapids are produced by bedding in limestone, lateral erosion being great at this point.

Garden Hill Conservation Area (Ganaraska Region Conservation Authority)

Location: East of Richardson's Lookout. From Highway 2 at Welcome, go north on County Road 10 for 6.5 miles to County Road 9 and then west for one mile.

Features: 54 acres of flat to rolling property with a 38-acre pond, marsh and cedarwood lots.

Nature Trails: Hiking only - not all the way around the pond with ease, due to private property, and no crossing of the Ganaraska River.

Nature Interpretation Program: The area is used by the Newcastle Board of Education. It is a good wildlife area for birds, as the area is used as a migratory stop-over. Fishing - trout.

Conservation Demonstration: A dam on the Ganaraska River (1959). Flood control and reservoir land.

Historic Site: A woollen mill used to be there but was burnt down in the 1880s. The old mill dam is also gone. There is a historical plaque to commemorate the "Guelph Conference" which initiated the conservation movement.

Haldimand Conservation Area (Lower Trent Region Conservation Authority)

Location: From Highway 2, go south to Wicklow and then south for two miles to Lake Ontario.

Features: 4.5 acres for access to Lake Ontario, sand beach.

Port Hope Conservation Area (Ganaraska Region Conservation Authority)

Location: In Port Hope, take Highway 28 north to the northern limits of the town.

Features: 98 acres of grassed flood plain adjacent to the Ganaraska River.

Nature Trails: One mile of unmarked trail.

Nature Interpretation Program: None is available, but the area has good wildlife in the central natural area. A willow bottom area.

Conservation Demonstration: The Ministry of Natural Resources operates a fishway past the dam. Some gabion basket work to correct erosion.

Historic Site: Remains of the old hydro electric dam — dam still functional.

Proctor Conservation Area (Lower Trent Region Conservation Authority)

Location: In the Village of Brighton.

Features: 90 acres of flat to hilly areas with two small ravines and glacial features — the Iroquois shoreline and beach. Butler Creek. The area has a vegetation cover which consists of a mature maple/beech hardwood forest, a mature cedar swamp and 0.25 mile of trout stream.

Nature Trails: 2.5 miles of cross-country skiing and hiking trail.

Nature Interpretation Program: An interpretive manual is due in 1977 and a small arboretum began in 1976. The area is also suited to topographic studies, glacial studies, plants and ecosystems.

Conservation Demonstration: Plantings in the spring of 1976.

Historic Site: Proctor House built in the 19th century in the Italianate Style and is leased to a citizen's group (Save Our Heritage) in Brighton which has restored most of the house and opened it as a museum.

Rice Lake Conservation Area (Ganaraska Region Conservation Authority)

Location: Take Highway 28 north from Highway 401 and then take old County Road 9 for one mile east.

Features: 173 acres of woodlots, open grass and marsh areas fronting onto Rice Lake. Two creeks feed into the marsh and other vegetation cover includes cedar, pine and oak woods. A kettle depression.

Nature Trails: Hiking on brushed trails.

Nature Interpretation Program: None is available but is being developed for day use. It is an excellent wildlife area and the following are worthy of study: ducks, game birds, fish, fox and small mammals. Study of the lake's interchange with the marsh.

Conservation Demonstration: Wildlife management proposed for future.

Richardson's Lookout (Ganaraska Region Conservation Authority)

Location: From Highway 2 at Welcome, go north on County Road 10 for 6.5 miles to County Road 9 and then west for 1.5 miles.

Features: A three-acre scenic lookout at the top of Dean's Hill. Oak Ridges Moraine and Authority Forest to the north, the Ganaraska River valley to the north and east.

Other: The area was named after A.H. Richardson who wrote **The Ganaraska Watershed** in 1944; he was at the forefront of the conservation movement.

Seymour Conservation Area (Lower Trent Region Conservation Authority)

Location: Go south on Highway 30 from Campbellford for two miles.

Features: 203 acres of limestone plain with an old rock quarry - a source of fossils. The bedrock thickness is unknown. Examination of the gorge occupied by the Trent River at Granny Falls below Campbellford would indicate that it is very deep. This gorge is believed to be one of many remnants of a major preglacial river that drained eastward along the south side of the Lake Ontario basin. A drumlin aligned north 26° east, as in the Peterborough drumlin field.

Nature Trails: One trail leading through the quarry, across the limestone plain, through cedar swamp and hardwood bush on the drumlin.

Nature Interpretation Program: An interpretive manual is due in 1977 dealing with plant species, ecosystems and wildlife. The area is suited to geological and glacial studies. A snowfall measurement site.

Sylvan Glen Conservation Area (Ganaraska Region Conservation Authority)

Location: One mile east of Welcome on Highway 106, go north for one mile on the township road.

Features: A five-acre flood plain area in the valley of the Ganaraska River.

Nature Trails: Hiking.

Nature Interpretation Program: Stream studies.

Conservation Demonstration: Erosion control with gabion baskets. Flood plain land.

(iii) CONSERVATION AREAS (Undeveloped)

Brickley Schoolhouse (Lower Trent Region Conservation Authority)

Location: On County Road 25, go south from Hastings for five miles.

Features: One acre.

Historic Site: One of the oldest separate schools in the province. The school board has a history of the building.

Frank E. Gooderich and Loomis Property (Lower Trent Region Conservation Authority)

Location: Five miles north of the Village of Brighton, then go west on Concession Road 6, Brighton Township, for three miles.

Features: 450 acres of Oak Ridges Moraine. The dominant landform is part of the Codrington Esker which forms the northern boundary of the property. The esker stretches for a length of more than 55 miles, making it the longest in southern Ontario. There are some interesting irregularities in the esker at the Gooderich-Loomis area due to wave erosion by glacial Lake Iroquois. It is here also that the esker meets the Oak Ridges Moraine. The remainder of the site is mostly moraine deposits, being part of the Oak Ridges complex. The vegetation cover includes mature maple/beech through to cedar, hemlock, old pastures and managed hardwood areas. There are some very large trees and near virgin timber.

Nature Trails: Developed.

Nature Interpretation Program: An interpretive manual is now being developed. The local topography, soil types and past land uses on the Gooderich-Loomis area have provided a very diverse vegetation growth. The diversity is both in age and species composition. Succession can be traced from grasslands on the Loomis portion to mature climax forest on the Gooderich portion. This exercise can be carried out for both wet and dry sites at the Gooderich-Loomis making the study even more interesting. The site appears to support at least nine distinct forest cover types. These include three wet site types and six dry site types. Some of the mammals include white-tailed deer, red fox, coyote, beaver, muskrat, mink, weasel, red squirrel, grey squirrel, porcupine, cotton-tail rabbit, snowshoe hare. This is by no means a complete list of resident mammals, but does indicate the variety of habitat available. Likewise, avian species are just as abundant from songbirds, to game birds and birds of prey. The Gooderich-Loomis area is dissected by Cold Creek and a tributary known locally as "Little Cold Creek". These waters are both high quality trout streams and sustain natural populations, although supplemental stocking takes place each year.

Conservation Demonstration: The planting of hardwoods in 1976. Erosion control on the esker is being carried out by the planting of shrubs.

Historic Site: Logging and agriculture. The Proctors used to own this area and ran a sawmill.

Other: For this property and others in the Lower Trent Region as well, further information may be obtained from Jim Kelleher, the Resource Technologist. He has written excellent physical analyses of the areas.

Hoard's Wildlife Reserve (Lower Trent Region Conservation Authority)

Location: From Stirling, go seven miles west on Hastings County Road 8 and then go south for two miles on Island Park Road to Squire Creek.

Features: 133 acres of cattail marsh at the mouth of the Squire Creek with a small island of bush - ash, willow and alder shrubs. There are drumlins on either side of the property.

Nature Trails: There are none; access is best by a small boat from the Trent River.

Nature Interpretation Program: None available, but the area is suited to marsh and glacial studies.

(iii) CONSERVATION AUTHORITY AGREEMENT FOREST

Ganaraska Forest (Ganaraska Region Conservation Authority)

The **Ganaraska Forest** includes approximately 3,500 hectares (10,000 acres) of natural and reforested lands. The forest was established by the Authority in conjunction with the Province of Ontario as an attempt to reclaim the badly eroded wastelands along the Great Pine Ridge. The forest is important as a water management tool minimizing spring runoff and augmenting summer flow. In addition, the forest produces wood fibre and provides recreational land for the public.

The **Ganaraska Forest Centre**, in the heart of the Ganaraska Forest, serves as a focal point for the recreational and educational use of the forest. Information on hiking, nature, snowmobile and cross-country ski trails is available and an interpretive program is operated at the Centre for the general public and school groups. The Centre is also made available for organized group camps throughout the year.

(iv) WATER CONTROL AREAS

Warkworth Dam and Reservoir

Location: In the Village of Warkworth.

Features: Six acres with half an acre of lake. The dam was built in 1970.

(v) RESERVOIR LANDS

Allan's Mill (Crowe Valley Conservation Authority)

Location: On the Crowe River south of Callaghan's Rapids. Go west at the junction and then south on the next road to the dam.

Features: A large weir and dam built in 1972, rapids below the dam. Fishing upstream on Rylstone Lake.

Nature Interpretation Program: Good wildlife area - birds.

II County Agreement Forests

Northumberland County Forest (Lindsay District, Ministry of Natural Resources)

5,112 acres of reforestation. This area was settled in the mid-eighteenth century onwards by farmers who cleared the land, but the sandy and gravelly soils were not suited to grain farming. The farmers were forced to leave by the mid-nineteenth century as a "dustbowl" situation had arisen - blow sand. The forest is located on the Great Pine Ridge (Oak Ridges Moraine), and it lay idle for some years. It was surveyed in 1923 by the Ontario Forest Branch (G.M. Linton and A.H. Richardson). The sheet and gully erosion was halted, but sand dune evidence is still observed. The area is covered mostly with red pine, scotch pine and white pine (natural) as well as patches of mixed hardwoods (oak dominant). The plantings took place from 1924 to 1935.

Hamilton Township Forest (Lindsay District, Ministry of Natural Resources)

40 to 50 acres of red pine reforestation. There are references available from the Lindsay District Office of the Ministry of Natural Resources on the Northumberland County Forest. A soil map of Northumberland County is available from the Ministry of Agriculture and Food in Ottawa or the county office. The wildlife in this area includes occasional deer, small mammals and songbirds. There are some very limited wet areas around the creeks, but the area is generally dry. Recreational used include a ski hill (Northumberland Forest Ski Club), cross-country skiing and snowmobile trails (horse riding in the summer).

Cramahe Township (Napane District, Ministry of Natural Resources)

200 acres of mature forest.

III Crown Lands

Haldimand Township (Lindsay District, Ministry of Natural Resources)

Concession 1, Lot 27	45 acres
Concession 1, Lots 10 and 11	194 acres
Concession 8, part Lots 14 and 15	82 acres

Hamilton Township

Concession 1, Lot 7	80 acres
---------------------	----------

Napane District, Ministry of

Natural Resources	600 acres
of crown land.	

Crowe River Canoe Route passes through Northumberland County (see Peterborough County).

Ottawa-Carleton Region

V Provincial Fish and Wildlife Management Areas

Brighton Provincial Wildlife Area (Napanee District, Ministry of Natural Resources)

Location: Exit Highway 401 at exit No. 86 and go back east and over Highway 401 to the north side and then go along County Road 26.

Features: 954 acres of rolling topography. Vegetation cover is mixed and includes fields, old orchards, wildlife shrubs, woodlots and agricultural lands for grains.

Nature Trails: There is an entry road and easy access through the property.

Nature Interpretation Program: This is a hunting area for game birds, the "put and take" hunting of pheasants, etc.

Other: For more information, see page 10 of the "Wildlife Management Area's" Guide.

Codrington Fish Hatchery (Napanee District, Ministry of Natural Resources)

Location: The area is on the south side of the Village of Codrington, on the west side of Highway 30, 10 miles north of Brighton.

Features: A 100-acre fish hatchery which annually produces 100,000 lake trout, 50,000 rainbow trout, and 50,000 speckled trout.

The Manager and staff and Codrington welcome visitors between 9:00 a.m. and 4:00 p.m. when the hatchery is in operation. For group tour arrangements, write: The Manager, Codrington Fish Hatchery, Ministry of Natural Resources, Codrington, Ontario. Telephone (613) 475-2512. A detailed pamphlet on this area is available.

I Conservation Authority Lands

(i) CONSERVATION AREAS (Developed)

Baxter Conservation Area (Rideau Valley Conservation Authority)

Location: Regional Road 13, three miles south of Kars on the Rideau River.

Features: 162 acres of low-lying and flat land on unstable Champlain Sea deposits. Vegetation cover consists mostly of scrub - alder/cedars and a small hardwood stand. Shoreline on the Rideau River.

Nature Trails: Two miles of marked trail through the flood plain area and the alder/cedar wetlands. A self-interpretive brochure is available.

Nature Interpretation Program: An interpretive centre is available on the property. The Authority hopes to develop the area as an outdoor education facility for school groups and the general public.

Historic Site: On the Rideau River.

Dickinson Square Conservation Area (Rideau Valley Conservation Authority)

Location: On Mill Street in Manotick.

Features: Three acres of flat and grassed land containing Watson's Mill (1860), and the Dickinson house. A Rideau Canals dam is adjacent to the mill.

Nature Trails: None, but there is a walkway to the river.

Nature Interpretation Program: It is entirely historical. Mill tours are available all the year 'round through the office (telephone Mrs. Thompson at 692-3571) from 9:00 a.m. to 5:00 p.m. In summer, from June to September, guides are available, and from October to May, from 8:30 a.m. to 4:30 p.m. by appointment only. There are special days open to the public. At all the times, please telephone ahead. The mill is at present (1977) non-operational as it is being refurbished and renovated.

Conservation Demonstration: A dam on the Rideau River (a back channel in Long Island) being part of the Rideau Canal (Parks Canada).

Historic Site: Moss Dickinson, "King of the Rideau", was the founder of Manotick and was the mayor of Ottawa. (For further details, see the book "The King of the Rideau" by C.L. Carroll from the Rideau Valley Conservation Authority, cost \$3.50) The house was built in 1868 and is of the classic revival style (e.g., Abraham Lincoln's house). An excellent pamphlet is available from the Rideau Valley Conservation Authority on Dickinson house and Watson's Mill, for further details. Other excellent references include **The Trail and Landscape Magazine**, Volume 9, No. 3, from the Ottawa Field Naturalists' Club, Box 3264, Postal Station "C", Ottawa, Ontario K1Y 4J5.

(ii) **CONSERVATION AREAS (Undeveloped)**

Dr. W. Arnold Taylor Conservation Area (Rideau Valley Conservation Authority)

Location: Take Regional Road 19 (River Road) south from Manotick to the junctions of 19 and 114. The area is situated at the junction.

Features: 16 acres of former farmland on the Rideau River. Day-use area. Picnic site, beach, boat launch, and parking areas will be completed by the end of 1977.

Pinhey Property (Mississippi Valley Conservation Authority)

Location: Overlooking the Ottawa River north of Highway 17 (Lot 24, Concession 7 of March Township).

Features: 80 acres of flat, limestone plain sloping down to the river and containing a large, old English style mansion. Vegetation cover consists of a few white pine in a mostly open area. There are outcrops on the Ottawa River.

Historic Site: The mansion, built in the 1830s, is being restored. Hamnet Pinhey was a blockade runner during the Napoleonic Wars and the King of England gave him 1,000 acres of land in March Township as a reward for his service. There was a mill on the adjacent creek, now in ruins. St. Mary's Anglican Church is now an ivy-covered ruin on the adjacent property. The cemetery contains many graves of early prominent settlers including Pinhey and his sons.

Other: No public access due to restoration.

(iv) **WATER CONTROL AREAS**

Brewer Park Dyke (Rideau Valley Conservation Authority)

Location: In the City of Ottawa on the Rideau River in Brewer Park.

Features: A Flood-control project composed of an earth and sheet pile wall dyke built to control flooding in the Brewer Park area of Ottawa.

Heart's Desire Weir (Rideau Valley Conservation Authority)

Location: Take Highway 16 to Woodroffe Avenue and the area is one mile west of the junction of Highway 16 and the Jock River.

Features: A removable weir and community pond.

Richmond Weir (Rideau Valley Conservation Authority)

Location: In the Village of Richmond on the Jock River.

Features: A removable weir for low flow augmentation.

II Regional Agreement Forests

West Carleton Township — Torbolton Ward (Ottawa District, Ministry of Natural Resources)

Location: Take Highway 17 west to Regional Road 9 and then go northwest to Woodlawn and there on the paved road

(Regional Road 39) to Constance Bay.

Features: 430 acres of sub-marginal land on a sandy ridge, the north side of Constance Bay. The area is generally rolling, contains four kettle formations and provides a scenic view across the Ottawa River. The area has been burned over and jack pine, red pine and red oak have been planted. There is a beach adjacent and a picnic site at sandy ridge. Rare sand dune community, relict of Champlain Sea. Details available from Ottawa Field Naturalists' Club.

Nature Trails: Three miles of roadways have been cut.

Conservation Demonstration: Woodlot management operations and insect control for weevils in white pine.

Historic Site: An old Iroquois Indian encampment on an inland waterway which was an historic route for the settlement of Ontario and Quebec and the establishment of the timber industry. A pamphlet entitled **Sandy Ridge Picnic Site** is available from the Ottawa District Office of the Ministry of Natural Resources.

Cumberland Township Forest

Location: Take Highway 417 east to Vars cut-off and go north to the area which is in two blocks on either side of the village and includes part of the La Rose Forest.

Features: 563 acres of flat, sandy, marginal agricultural lands. The vegetation cover consists mostly of natural hardwoods with red maple being dominant.

Nature Trails: Roadways only.

Conservation Demonstration: Woodlot management.

The Ottawa-Carleton Forest — Marlborough Ward (Ottawa District, Ministry of Natural Resources)

Location: Take Highway 16 south to North Gower and then Regional Road 4 west (Smith's Falls Road) for eight miles.

Features: 8,380 acres of flat limestone topography with shallow soils. The area has a cover of natural, mixed forest with cedars being dominant. Other species include spruce and balsam. In 1965, limited planting began of jack pine, red pine, larch and white spruce. N.B. — The Richmond wetlands within this regional forest is a significant feature. Details in: Trail and Landscape II (1).

Nature Interpretation Program: The area is good for wildlife with beaver ponds and deer yard management. The forest is not highly productive and contains many rock outcrops.

Conservation Demonstration: Management of the natural forest (that is partly native) and of special interest is the silvicultural system for harvesting cedar.

Historic Site: The area is adjacent to Burritt's Rapids, the first settlement in the Ottawa area in 1795. A pre-1800s cemetery and a church in Burritt's Rapids, dating from 1831.

The total acreage of forest in the Ottawa-Carleton Region is 15,873 acres.

III Crown Lands

West Carleton Township

Location: On Highway 44, Concession 12, Lot 15.

Features: 140 acres of jack pine plantation and on Highway 17, Concession 7, Lot 21, 120 acres of Ministry of Transportation and Communications surplus land.

Marlborough Township

Location: Concession 1, Lot 3, opposite Rideau Provincial Park.

Features: 200 acres of old plantation as a possible extension of the provincial park. This brings a total of 650 acres of crown land in scattered pockets and some adjacent to agreement forests in the Ottawa-Carleton Region.

The Mississippi Canoe Route from Dalhousie Lake to the Ottawa River passes through the Ottawa-Carleton Region. For more details, contact the Mississippi Valley Conservation Authority.

The Rideau Trail passes through the Ottawa-Carleton Region. See Leeds and Grenville Counties for further details.

V Provincial Fish and Wildlife Management Areas

There are no specific sites in the Ottawa-Carleton Region, but the pamphlet, **Fishing in Ottawa Carleton**, contains many details including launching sites for larger boats, launching sites for canoes and smaller boats, fishing areas. For all other information including publications, please contact the Ontario Ministry of Natural Resources at Ramsayville, Ontario. The office is located two miles east of Highway 31 (Bank Street South) on the Leitrim Road; turn east off Highway 31 at the police station, Township of Gloucester.

VII Provincial Parks and Park Reserves

Fitzroy Provincial Park (Ottawa District, Ministry of Natural Resources)

Location: Exit Highway 17 at County Road 22 and go east to County Road 5 and then follow the signs to Fitzroy Harbour, then go 14 miles north and follow the signs.

Features: 457 acres of rolling and open former agricultural areas. The Carp River divides the park and Butternut Island is at the mouth of the river and its confluence with the Ottawa River. Mature hardwoods and conifers cover parts of the park, with hardwoods being dominant (poplar and hard maple being dominant amongst the conifers). The shale

bedrock outcrops in parts of the park and along the shoreline which also has some sandy areas. 660 feet of beach.

Nature Trails: Half a mile of walking trail along the cliffside and one mile of unmarked trail through the treed area and outcrops.

Nature Interpretation Program: Though Fitzroy is a recreation park, hikes are led and movies are shown throughout the summer from the second Friday in May until the third Sunday in September. Limited facilities are available during the off-season. Though water fluctuation problems exist due to the Chat's Falls Hydro Dam immediately upstream, the park provides good fishing for bass, pickerel and pike.

Conservation Demonstration: The planting of poplar, white pine, shrubs, ashes, maples, etc., began in 1962. Gabion work adjacent to bridge.

Historic Site: The park was named after Sir Charles Fitzroy, son-in-law of the Governor of Canada, a century and one-half ago; the park is part of an early pioneer homestead. The first settlers in this area, the Shirreff family, built the house here about 1820. The first house built in Fitzroy Harbour was actually Sir Charles Fitzroy's brother's house. Adjacent is another house, the foundations of which were found in the park. This was the original house in this area that belonged to the Shirreffs.

Other: For further information, contact Bill Sturton at (613) 623-5159. A pamphlet is available on this park.

Rideau River Provincial Park (Ottawa District, Ministry of Natural Resources)

Location: On old Highway 16 north of Kemptville.

Features: 214.3 acres of recreation park with a level topography and deep sandy soil. The park fronts onto the Rideau-Trent canal system where there is 1600 feet of beach and 6.3 acres of water. Vegetation cover consists mostly of open space. However, there are plantations of white spruce and scotch pine.

Nature Trails: None are available within the park, but there are many in the adjacent G.Howard Ferguson forest station.

Historic Site: The Rideau Canal System.

Other: Contact the Park Superintendent, Mr. A. Downey, at Ramsayville District Office of the Ministry of Natural Resources for further information.

IX Federal Lands

The National Capital Commission Greenbelt

Location: Surrounding Ottawa in a crescent.

Features: 44,000 acres of greenbelt established in 1961.

Having several areas of educational interest. The purpose of the Greenbelt is:

- 1) to prevent further haphazard urban sprawl around the capital including urban development along the approach highways so to protect adjacent farming areas from being swallowed up by uncontrolled development;
- 2) to meet a long-time capital planning need by ensuring that when the central area is built up, an adequate reserve of sites for future buildings for government and public institutional purposes is retained;
- 3) to place a practical and economic limit on the growth of the capital by confining intensive building development to an area which could be provided with municipal services at a reasonable cost.

The Greenbelt can be visualized as the outer part of half of a saucer with the urban core situated in the bottom and with its edge being interrupted in several locations. The outer edge of the saucer is represented by a ridge of high ground which extends in an arc from the Ottawa River in Nepean Township to this river in Gloucester Township. In a former bed of the Ottawa River in Gloucester Township, a 6,000-acre peat bog, the Mer Bleue, extends westerly into the Greenbelt with three finger-like parallel sand ridges rising 25 to 40 feet above the level of the bog. North of Mer Bleue, the terrain rises to 375 feet above sea level. It then drops abruptly to an elevation of 175 feet near the Ottawa River. For further details on the Greenbelt, consult the excellent booklet **Urban Greenbelts**, by the National Capital Commission, available from 48 Rideau Street in Ottawa.

Nature Interpretation Program: The National Capital Commission has a comprehensive nature interpretation program to introduce students to the forests and marshes in the Western Greenbelt. The year-round program includes walks for the general public and studies for school groups and covers a variety of natural history topics. For more information, contact the National Capital Commission Interpretation Section at 541 Sussex Drive, Ottawa, Ontario, or telephone (613) 992-3323. Guided Walks may be arranged by contacting the Conservation Centre at (613) 828-3620. Descriptions of the several areas of educational interest in the National Capital Commission Greenbelt follow:

1) **Green Creek Valley**

Location: West of the Mer Bleue Bog and south of the Ottawa River. Leave the Queensway at Montreal Road. Park at the toboggan slide on Bearbrook Road. The area is south and east of the creek.

Features: Green Creek cutting through Leda clays — slippage clays deposited under the Champlain Sea.

Nature Trails: Cross-country ski trail alongside the creek. Access is difficult.

Nature Interpretation Program: The slippage scars are of

geomorphic interest. A fragile area. National Capital Commission Greenbelt Forest — 6,500 acres.

2) **Pine Grove (Agreement Forest)**

Location: Southeast of Blossom Park Sub-division off Bank Street (Highway 31). Turn east off Bank Street at Davidson Road. The site is 1.5 miles east on the south side of Davidson Road.

Features: 800 acres of flat land with a picnic site set in an aspen and pine grove. Vegetation cover consists of: second growth natural forest; white pines over 80 feet high, being 100 years old; plantations of white spruce and red pine and some small areas of marsh.

Nature Trails: Several miles of cut and marked trails and paths for forest access year round.

Nature Interpretation Program: A nature program on a forestry theme is being prepared.

Conservation Demonstration: Reforestation and management

Historic Site: A survivor of the Ottawa Valley timber boom.

Other: Winter activities. A pamphlet is available.

3) **Pinhey Forest (Agreement Forest)**

Location: From Highway 16, go along Merivale Road to Slack Road; then 0.25 mile west on Slack Road near Merivale Public School. The forest is on the north and south sides of Slack Road.

Features: 477 acres of rolling to flat land. Plantations cover much of this agreement forest with jack and red pine, poplars, second growth hardwoods, and sand dunes. A well.

Nature Trails: There are two trails, paths and fire access routes. There is a physical fitness trail adjacent to the Nepean Sportsplex on Woodroffe Avenue.

Nature Interpretation Program: Champlain Sea sand deposits; tree identification and general educational walks; the story of the blow-sand area; example of effect of "frost pockets" on vegetation.

Conservation Demonstration: A plantation of pines and Carolina poplars as a blow-sand rehabilitation demonstration. Forest management.

Historic Site: Fires, settlement since 1832 and logging removed the white and red pine from this area which led to erosion and drifting sands.

Other: Ski trails. A pamphlet is available on this area.

4) **Shirley's Bay (Restricted Access)**

Location: North of Highway 17 on the Ottawa River near Shirley's Bay. Access is over Department of National Defence land to a causeway leading to the marshy area. Entrance to causeway gated now by the Department of National Defence.

Features: A bird-watching area.

Other: This area (4,000 acres approximately) is used by the Ottawa Duck Club, a conservation group interested in Wildlife management. Ministry of Natural Resources waterfowl management — deer yard. Access is restricted to this area as it is adjacent to Department of National Defence land.

5) **Stony Swamp Area** (National Capital Commission Conservation Centre — formerly Ottawa Carleton Conservation Centre Incorporated)

Location: Take the Queensway west from Ottawa and exit at Moodie Drive South and go south for 2.5 miles. The Centre is on the west side of the road.

Features: 3,000 acres of agreement forest managed by the Ministry of Natural Resources. The beaver swamps are a source area of many streams. Evidence of the Champlain Sea shoreline and an exposure of the Hazeldean Fault. Vegetation cover includes: plantations of jack pine, red pine and white spruce; second growth natural hardwoods, such as maple and oak; some natural conifer stands including white pine and cedar; old fields; and marshes.

Nature Trails:

- (i) Jack Pine Trail;
- (ii) The Old Quarry Trail;
- (iii) Sarsaparilla Trail - 0.75 mile - a dock into the swamp (suitable for wheelchairs). A pamphlet is available.

Nature Interpretation Program: Public interpretation program and guided walks from the Conservation Centre available all year. Professional development days for teachers; general educational interest walks; studies of particular habitats.

Conservation Demonstration: Forest Management.

Historic Sites: The Log Farm, on Cedarview Road; Limekiln off Moodie Drive.

Other: For further information, contact National Capital Commission Interpretation at (613) 828-3620. Sample studies as follows: decomposition of wood, ecology of a temporary pond, environmental games, flowering plants, hardwood forest, litter decomposition, hardwood forest community study, Log Farm sugarbush visit, Old Quarry Trail, pioneer farm, plant growth on rocks, pond studies, snow, stream studies, winter survival, etc. 30 km of cross-country ski trails, the Rideau Trail.

6) **Mer Bleue Bog** (Private/National Capital Commission)

Location: Take the Queensway east to Blair Road, turn right on Blair, then left on Innes, right on Anderson Road and left on Ridge Road. Public access to this area is limited. Contact the National Capital Commission.

Features: 6,000 acres of peat bog, sand ridges, and channels. An old bed of the Ottawa River. This area is not developed and it is a fragile ecosystem to be used with the utmost of care. The rolling topography represents the old

river terraces, the sand ridges once being islands. Some hardwood areas. For further details, contact the Interpretation Section at (613) 992-3323.

Nature Trails: A winter trail guide is available from the National Capital Commission.

Nature Interpretation Program: The area is suited to bog studies, hardwood studies, old field succession and in the marsh area along the edge of the bog (Anderson Road), one can observe beaver dams, birds (migratory stop-over) and other wildlife. There has been geomorphic interest in the bog formation and material is available.

Conservation Demonstration: Preservation. Some reforestation.

Historic Site: The old settlements in this area are under study by the National Capital Commission who should be contacted on this topic.

Other: A leaflet entitled "Mer Bleue Bog" is available from the National Commission, Interpretation Section, 48 Rideau Street, Ottawa, Ontario K1N 8K5.

The Central Experimental Farm (Agriculture Canada)

Location: Travelling east on Highway 17, exit at Carling Avenue, turn right on Maple Drive, then left on Birch Drive to the Sir John Carling Building. Travelling west on Highway 17, exit at Parkdale and go south to Carling and then east to Maple Drive, turn right and then left on Birch Drive to the Sir John Carling Building. There are many access points as the area covers over two square miles.

Features: The Central Experimental Farm was established in 1886. It is the headquarters for the Canada Department of Agriculture and the Research Branch. This branch is composed of national research institutes, regional research stations, laboratories and experimental farms from Newfoundland to Vancouver Island. Its scientists work in laboratories and under practical farming conditions studying problems of Canadian agriculture.

The farm, originally just outside and southwest of Ottawa, is now inside the enlarged city area. It comprises nearly 1,200 acres of land divided into three areas, according to use.

In the main building area, Sir John Carling Building is the headquarters of the Department. It provides offices for the Minister, Deputy Minister, the Financial and Administration Branch, the Personnel and Administration Branch, the Economics Branch, the Food Systems Branch, the Health of Animals Branch, the Production and Marketing Branch and the Information Division. The K.W. Neatby Building provides offices and laboratories for senior personnel of the Research Branch. In the William Saunders Building are the bio-systematics research institute national mycological herbarium, vascular plant herbarium and associated staff. Also in this area are greenhouses, lawns and ornamental grounds, the arboretum and botanical garden, and the ornamental garden with its lily pool. In the adjoining areas,

there are shrubs, perennial borders, a rock garden, and plots that have varieties of tulips, irises, gladioli, lilies, peonies, roses, and other plants.

The Livestock Division of the Production and Marketing Branch maintains a showcase herd of dairy and beef cattle in two buildings. In the research area, small experiments of several institutes are conducted. They include plant breeding, testing of new varieties, the study of soils and the development of better field crops. In the fields, large scale experiments with crops are conducted under practical farming conditions. The farm grounds are open to visitors any day of the week from 8:30 a.m. until dusk. Guided tours are available to organized groups on appointment. (See Other.) Organized groups wishing a guided tour are required to make reservations at least a month in advance, especially during the months of April through August when many groups arrive each day. Also, during this busy period, priority in obtaining a guide is generally given to groups of six persons or more and to school groups above Grade VI level. Guides are available Monday through Friday from 8:30 a.m. until 3:30 p.m. There are, unfortunately, no guides available on Saturdays, Sundays or national holidays. Kindly provide the following information when making your reservation:

- 1) date of visit
- 2) time of arrival
- 3) number of people in the group and number of buses
- 4) age and grade
- 5) special interests
- 6) time of departure.

A tour of the farm usually lasts from one to one and one-half hours unless some special interests have been indicated. During the summer months, visitors can see our showcase herds of dairy and beef cattle, swine, horses, crops, field plots, ornamental and flower gardens, the arboretum and the building area with landscaping. Rides on a wagon pulled by Clydesdale horse are offered from May 1st to Thanksgiving at 10:00 a.m. and 2:00 p.m. on weekdays. Due to elaborate design and partial interference with research in the labs, access is limited to the most senior students and only four or five visitors at a time can be accommodated.

There are no commercial establishments where meals may be taken on the farm. However, visitors are invited to picnic on the grounds if they so wish. For further details, contact Mr. M.J. O'Connor, Public Services Section, Information Division, Sir John Carling Building, Ottawa, Ontario K1A 0C7, telephone (613) 994-5533.

The Central Research Forest (Department of Fisheries and Environment — Canadian Forestry Service)

Location: To get to the CRF, there are three routes:

- 1) Highway 17 (Queensway), exit at Blair Road (South) to Innes Road (East) to Anderson Road, up to Dolman Ridge

Road (follow signs).

- 2) Highway 417 (East), exit at Innes Road, to Anderson Road, following same directions as (1) above.

- 3) Highway 417 (East) to Anderson Road Interchange, and Anderson Road (North) to Dolman Ridge Road, as in (1) above.

The CRF is within the National Capital Commission Greenbelt.

Features: 950 acres (385 ha) of flat to gentle rolling topography containing two east/west sand ridges and marine clays laid down by the Champlain Sea. One-third of the property is a naturally regenerated forest with mixed hardwoods such as red maple, aspen and white birches, and some softwoods, such as white pine, and white cedar. The other two-thirds are old farmlands that have been replanted with about 80 various tree species grown in the CRF nursery. There are also two creeks which are the western outlet of the Mer Bleue Bog.

Trails: There are five miles (8 km) of roads and four miles (6.4 km) of ski trails on the CRF which link with the NCC ski trails.

Nature Interpretation Program: There is an interpretive room containing a collection of wood species, forest insects, forest mensuration equipment, property model and pictorial illustrations. There is also a short forest interpretation trail.

Conservation Demonstration: Reforestation and woodlot management can be observed.

Historic Site: A small forestry museum representing the early forest industry and hand tools is housed in the Administrative Building.

Other: There are cafeteria and study facilities for classes; further details from Mr. John Dunfield, Manager, at (613) 824-5400 or (613) 824-2884.

The Rideau Canal (See Leeds and Grenville for further details)

Other: The MacSkimming Outdoor Education Centre, R.R. No. 2, Cumberland, Ontario. Owned and run by the Ottawa Board of Education.

REFERENCES:

- 1) *The Mississipp Valley Conservation Authority*, Box 419, Carleton Place, Ontario K0A 1J0. Telephone (613) 257-4272.
- 2) *The Rideau Valley Conservation Authority*, Box 599, Mill Street, Manotick, Ontario K0A 2N0. Telephone (613) 692-3571.
- 3) *Ottawa District, Ministry of Natural Resources*, Ramsayville, Ontario K0A 2Y0. Telephone (613) 822-2525.
- 4) *The Central Experimental Farm*, c/o Mr. Marilyn O'Connor, Room 133, Sir John Carling Building, Carling Avenue, Ottawa, Ontario K1A 0C7. Telephone (613) 994-5533.

Peterborough County

5) *The Central Research Forest*, c/o Mr. John Dunfield, R.R. No. 9, P.O. Box 190, Ottawa, Ontario K1G 3N5. Telephone (613) 824-5400 or 824-2884. (The Forest Management Institute.)

6) *The National Capital Commission*, c/o Ms. Aileen Merriam, Chief, Interpretation, 48 Rideau Street, Ottawa, Ontario K1N 8K5. Telephone (613) 992-3323.

A survey of environmental educational resources near Ottawa schools was conducted as an O.F.Y. (Opportunities for Youth) Project (S.E.E.R.) in August, 1975. For information about this publication, contact the National Capital Commission, Interpretation Service, 48 Rideau Street, Ottawa, Ontario K1N 8K5.

I Conservation Authority Lands

(i) CONSERVATION AREAS (Developed)

Chemong Park (Otonabee Region Conservation Authority)

Location: From Peterborough, go six miles northwest via Highway 78 and continue on County Road 18 to Bridgenorth. The park is on the lakeshore and is signed.

Features: A 15-acre flat and open area sloping down to the lake.

Nature Interpretation Program: Mature white pines and sandy soil.

Conservation Demonstration: Erosion control using gabion baskets on the bank of the lake. Reforestation of white pine.

Heber Rogers Conservation Area (Otonabee Region Conservation Authority)

Location: North of Young's Point, go 3.25 miles on Highway 28, then east for one mile on Kawartha Park Road. The property is adjacent to Clear Lake.

Features: 102 acres of flat, sloping land with a cover of mixed hardwoods and limited softwoods.

Nature Trails: 1.5 miles of hiking through the treed area.

Nature Interpretation Program: Tree identification. Fair wildlife area.

Historic Site: The area is named after the person who donated it to the Conservation Authority.

Hope Knell (Otonabee Region Conservation Authority)

Location: From Peterborough, go six miles, east on highway 7 and then south for 2.5 miles on County Road 34 and then follow the access road for 0.5 mile. The access road is signed and is on the east side of the road.

Features: 122 acres of valley lands on the Indian River. The area is mostly open with a small cedar tree area around the campground. A glacial meltwater channel — the valley banks and hills on either side of the property.

Nature Trails: Hiking over the open areas of the property.

Nature Interpretation Program: Stream studies below the dam.

Conservation Demonstration: Dam for the mill-pond. Some plantation and reforestation work since 1971 with willow and poplars.

Historic Site: A sawmill built in 1836 now restored and working. The living quarters are presently being restored (1976).

Other: Nearby is the Lang Grist Mill and the Peterborough County Century Village. Winter activities. A pamphlet is available on this area for further details.

Lang Mill (Otonabee Region Conservation Authority)

Location: From Peterborough, go six miles east on Highway 7, then south for 3.5 miles on County Road 34 to Lang.

Features: 41 acres of flood plain land on the Indian River, the eastern part of which is leased to Peterborough County for the Century Pioneer Village.

Nature Interpretation Program: Glacial studies — the Indian River was once a glacial outflow from Lake Algonquin to glacial Lake Iroquois.

Conservation Demonstration: A dam for the mill-pond was rebuilt on its original site.

Historic Site: The Lang Grist Mill (1846) where David Fife had his red life wheat ground on the mill stones. Tours are available and refurbishing continues.

Other: A pamphlet is available on this area which is part of the Peterborough County Century Village.

North Monaghan Centennial Park

Location: From Peterborough, go four miles west on Highway 28, just west of the bypass.

Features: Eight acres of flat, open and grassed areas with a limited tree cover. A pond.

Nature Interpretation Program: Pond studies.

Conservation Demonstration: Limited plantings.

Squirrel Creek Conservation Area (Otonabee Region Conservation Authority)

Location: From Peterborough, go 12 miles south of Highway 28 and then two miles east on Peterborough County Road 28.

Features: 275 acres of flat and marshy flood plain lands with Squirrel Creek flowing through the property to its confluence with the Otonabee River on the north side of the property. 70% of the area is a marsh with some mature hardwoods, but the area is mostly brush and immature second growth hardwood. Sandy areas near the campground.

Nature Trails: 1.75 miles of trail exist with a boardwalk being planned adjacent to the marsh. No pamphlet or labelling.

Nature Interpretation Program: Succession studies in an area that is good for wildlife such as waterfowl, small mammals and deer in the mixed hardwood area.

Other: A pamphlet is available on this area. Winter activities.

Warsaw Caves (Otonabee Region Conservation Authority)

Location: Travel 15 miles northeast from Peterborough to Warsaw on County Road 4 and then continue on for 2.5 miles to the north.

Features: 671 acres of forested and bare rock areas where the topography is mostly flat except for the Indian River Gorge which is 250 feet deep, numerous crevices in the limestone. Cedar are the dominant tree species.

Nature Trails: Seven miles of cut and marked trails for which self-guiding brochures are available in 1977. There are seven trails, two of which are true nature trails in that they are self-interpreting.

Nature Interpretation Program: Succession studies in the "plains area". Limestone topography and underground rivers. Glacial studies. The kettles consist of hundreds of potholes from several inches to feet in diameter formed by the glacial meltwater stream that flowed through this period at the end of the Ice Age. Geological studies of the caves, sink holes, limestone blocks, chert, the fossils and great boulders are all of interest.

Conservation Demonstration: Plantings.

Historic Site: Chert arrowheads.

Other: An excellent reference is "A Guide to the Geology of the Warsaw Caves Conservation Area", by L.B. Williams, 1974. A leaflet is also available on the caves.

Whitfield Landing (Otonabee Region Conservation Authority)

Location: From Peterborough, go nine miles south from Highway 28 to Fraserville, then two miles east.

Features: Two acres of flood plain land on the Otonabee River. Boat Launch and dock.

Nature Interpretation Program: Access to the river.

Young's Point (Otonabee Region Conservation Authority)

Location: Go along Highway 28 north of Lakefield for two miles. The area is directly south of Young's Point on Clear Lake.

Features: 35 acres of flat and sloping land adjacent to Clear Lake. 70% forested with hardwoods. No access to the lake.

Nature Trails: Hiking, but there are no cut trails.

Nature Interpretation Program: Very limited — tree identification and small mammals of local interest.

Ennismore (Otonabee Region Conservation Authority)

Location: From Peterborough, go six miles northwest on Highway 7B, then take County Road 18 to Bridgenorth and go west on Chemong Causeway to County Road 16, then north for two miles to Concession 5, Ennismore. Then, go two miles east to Chemong Lake.

Features: 34 acres of flat limestone topography sloping down to the lake. Vegetation cover consists of open fields and a light tree cover. Lake access and beach.

McCracken Homestead (Otonabee Region Conservation Authority)

Location: 1.5 miles north of Warsaw Cave.

Features: 136 acres.

Conservation Demonstration: Woodlot management.

Historic Site: The oldest homestead in Dummer Township.

Norwood Conservation Area (Otonabee Region Conservation Authority)

Location: From Peterborough, go 20 miles east on Highway 7 to the Village of Norwood. Go north for one mile on County Road 40.

Features: 131 acres of lightly wooded and gently rolling land along the Ouse River. The area contains the Ember's Ridge esker. There is an underground river and the Leaside View drumlin. There is a 30-acre mill-pond and a land fill site in the centre of the area. Hardwoods thrive on the drumlin and esker.

Nature Trails: Two miles of hiking trail.

Nature Interpretation Program: Geomorphic and glacial studies. Tree identification. Pond studies - the mill-pond being deeper at the north end of the pond. Stream studies. Garbage and pollution studies at the land fill site. Tree species include birch, maples, ash, beech, pine, spruce, oak, apple, wild cherry, choke-cherry, elms, willows, hawthorne, poplar and sumach. Wild flowers and berries include raspberry, blackberries, strawberry, trilliums, black-eyed Susans, Canada thistles, Scotch thistles, wild roses, daisies, daisy fleabane, bellflower, St. John's wort, cockle, and Joe pyeweed.

Conservation Demonstration: Small dam at the south end of the pond.

Historic Site: Old mill-pond site.

Other: Winter activities. A pamphlet on the area.

Richard O'Connor Memorial (Otonabee Region Conservation Authority)

Location: From Peterborough, go four miles south on Highway 28 to the 8th Concession Road, North Monaghan Township, and here go two miles east to the property.

Features: 27 acres of flat and grassed flood plain land on the Otonabee River with a light tree cover.

Selwyn Conservation Area (Otonabee Region Conservation Authority)

Location: Go seven miles north of Peterborough on Highway 28 to Highway 50 and then six miles north to the hamlet of Selwyn. Go one mile west and take the first road north for one mile.

Features: 78 acres of rolling, limestone topography with one mile of frontage and inlets on Chemong Lake. The vegetation cover in the north consists of a mature hardwood stand while in the south, it is of open fields and cedars.

Nature Trails: Hiking.

Nature Interpretation Program: The area was grazed until about 1965 and is only suitable for tree identification and small mammals. There is also a very small wetland area.

Historic Site: An old farming area with stone walls and clear fields.

(iii) CONSERVATION AUTHORITY AGREEMENT FOREST

The Ganaraska Forest (Ganaraska Region Conservation Authority)

The Ganaraska Forest covers a total of 29,318 acres throughout the counties of Northumberland, Peterborough and Victoria as well as Durham Region. Now follows a breakdown of ownership: The Ganaraska Region Conservation Authority, 8,656 acres (29.52%); The Ontario Ministry of Natural Resources, 1,094 acres (3.73%); The Regional Municipality of Durham, 1,188 acres (4.05%); Peterborough County, 179 acres (0.62%). This brings a total of 11,117 acres in public hands or 37.92%. The remaining 18,201 acres (62.08%) are in private ownership.

Approximately 10,000 acres are owned and managed by the Ministry of Natural Resources. Breakdown of its distribution is as follows:

Durham Region	4,618 acres
Northumberland County	3,282 acres
Peterborough County	1,400 acres
Victoria County	700 acres

Geographically, the Ganaraska Forest is situated on the Oak Ridges Moraine (the Great Pine Ridge) which is a sand moraine forming the headwaters of the Ganaraska and other rivers. This headwater area was clear-cut during World War II and is now being protected to alleviate erosion problems found here and downstream. Some erosion problems still remain in the form of sheet erosion and siltation in the streams. Indeed, some erosion is still taking place being caused by the recreational use of this area, i.e., trail bikes. There is a second growth of birch and poplar as well as a plantation cover of red and white pine and lesser amounts of jack and scotch pine. No original forest cover exists. The area lacks wetlands, but is excellent for outdoor education and cross-country skiing (see pamphlet). Planting is still continuing in this area as part of the Forestation Act Program. Contact the Ganaraska Region Conservation Authority for further information on recreation and the forests. The Ganaraska Forest is the subject of a resource management study at the present moment.

Dummer Township Forest (Otonabee Region Conservation Authority)

Location: Take County Road 4 20 miles from Peterborough.

Features: 2,713 acres of mixed forest on rolling terrain consisting of glacial debris. Woodlot management. Snowmobile trail.

The Cavan Bog (Otonabee Region Conservation Authority)

Location: Travel six miles west of Peterborough on Sherbrooke Street and the bog is situated off Concession 13 in the Township of Cavan. There is no defined access point.

Features: 1,547 acres in several separate lots being mostly bog with a few higher spots of upland vegetation. The area forms the headwaters for Jackson's Creek which flows through the City of Peterborough. Tree species found in the marsh include, in order of dominance, balsam, poplar, aspens, white elm, white cedar, tamarack, black ash, black spruce, balsam fir. Sphagnum bog may be found in the southeast areas.

Nature Interpretation Program: There is up to 15 feet of organic material in the Cavan Bog and approximately six-inch layer of muck on the surface. There are beaver dams and ponds, but the habitat for waterfowl is not very good, although some are found. Orchids - up to 40 different species have been observed. The best area is in adjacent private land.

Conservation Demonstration: Plantings. Blasting to provide better habitat for waterfowl. Blowdown areas of cedar cover now succeeded by a coppice growth of poplars.

Historic Site: The Cavan Bog is on the site of an ancient glacial lake or ponding (Lake Jackson) and actually covers over 3,000 acres. A sawmill was once used to operate nearby, milling elm and black ash, but was closed in the early 1960s. Grazing has been detrimental to the maple in the dry fringe areas.

Other: See the **Otonabee Region Conservation Report, 1965** (Summary), or contact the Peterborough Naturalists for further information.

(v) RESERVOIR LANDS

Belmont Lake Dam (Crowe Valley Conservation Authority)

Location: Take Peterborough County Road 44 out of Havelock, go to the end of the county road, turn left (north) to the Crowe River for four miles.

Features: Six sluice-ways opened in 1975 to control the water level in Lake Belmont.

Millbrook Dam (Otonabee Region Conservation Authority)

Location: Go 12 miles south of Peterborough on Highway 28, then five miles west on County Road 28.

Features: Two-acre mill-pond and wooden dam.

(vi) FLOOD PLAIN LANDS

Peterborough Town Park Land (Otonabee Region Conservation Authority)

Location: 40 acres at Jackson Creek Park and 11 acres on the east side of Little Lake. For further information, contact Mr. R. Stannard, Board of Park Management, Parks and Recreation Department. Telephone (613) 745-0518.

(vii) CONTROL LANDS

The Birdsall Wildlife Area (Otonabee Region Conservation Authority)

Location: This is not the shortest route, but it is the best paved route to the area. From Peterborough, take Highway 7 east for six miles to County Road 34, go south for six miles to County Road 2, then go east for six miles to the Otonabee/Asphodel Township Boundary Road, then south for one mile to the area at Rice Lake.

Features: 336 acres of the Spillsbur Creek. 75% of the area is in Maple Beach Forest and there is also a drumlin which is marshy at the sides, grassed with forest on the edges. Heronry.

Nature Trails: A cut and marked path to the heronry.

Nature Interpretation Program: Stream studies and waterfowl.

Historic Site: The original Keen-Hastings Road goes through the area; an old Indian trapper hut.

Other: Care must be taken as this is a very fragile area.

The Darling Wildlife Area (Otonabee Region Conservation Authority)

Location: Go 11 miles south of Peterborough on Highway 28 and then go two miles east on Concession Road 5 (South Monaghan Township).

Features: 193 acres on a small creek which abuts the Otonabee River. Two-thirds of the area consists of marsh - the other third being higher ground which is leased to a farmer. There is no defined access point.

Nature Interpretation Program: Waterfowl habitat.

Miller Creek (Otonabee Region Conservation Authority)

Location: Go seven miles north of Peterborough on Highway 28 to Highway 507. Go one mile north on Highway 507 to Concession Road 6 (Smith Township). Go three miles west on Concession Road 6.

Features: 40 acres of wetlands with no defined access point. Abandoned railway bed.

Nature Interpretation Program: Waterfowl and marsh.

Sawer Creek (Otonabee Region Conservation Authority)

Location: Go nine miles northeast of Peterborough on County Road 4 to the 3rd Line Douro Township, go four miles north on the 3rd line. The gravel road provides only poor access to this land-locked area.

Features: 750 acres of wetlands.

Nature Interpretation Program: Waterfowl and marsh.

Stewart's Wood (Otonabee Region Conservation Authority)

Location: Go to Squirrel Creek and then go on three miles east on County Road 28, turn north for one mile on County Road 28. No sign or defined access.

Features: 68 acres of mature hardwoods.
Nature Interpretation Program: Tree identification.
Conservation Demonstration: Forest management.

II County Agreement Forests

For forests in the Lindsay District, contact the Peterborough County Office as they are owned and managed by the county. Telephone the Lands Department, (613) 743-3718.

Minden District Forest

600 acres in the northwest of Galway Township.

III Crown Lands

BANCROFT DISTRICT OFFICE, Ministry of Natural Resources

The crown lands are used for timber production, fish and wildlife production and recreation. The acreages of crown lands are:

Anstruther Township	59,520 acres
Burleigh Township	53,120 acres
Chandos Township	12,800 acres
Methuen Township	49,280 acres

The main forest areas are:

(1) The Lowrie Lake Operating Block

This extends into Haliburton County. It is a mixed forest with salvaged cuts using up balsam fir and white spruce damaged by the spruce budworm. Large cedar area. The best access is via Highway 28 in Haliburton.

(2) The Old Burleigh Road Operating Block

Similar to Lawrie Lake with mature pine, poplars and tolerant hardwoods. Most of Bancroft District's protection forest is in Anstruther, Burleigh and Methuen Townships. These are areas of shallow soil, not productive for timber, but are suited to winter activities and canoe routes in summer.

A sensitive and special areas report was completed for the Bancroft District in 1973. Some of the more interesting aspects of educational value are listed below, but for a more complete listing, see the Bancroft District Office.

Deer Yard Areas

Areas containing significant cover may be found in central Burleigh Township along Eels Creek, the Julian and Eels Creek area of Burleigh Township, southeast and southwest of Julian Lake and west of Eels Creek area of Burleigh Township. South and east of Jack Lake in Methuen Township and the Lasswade area of Methuen Township southwest of Lasswade.

Geological Features

Chandos Township, Concession 7, Lot 7, rock intrusions. There is a large block of granite rock with 10-inch wide red granite cross in the face of it. Chandos Township, Concession 3, Lot 1, the Chandos caves. This is a fault area with numerous caves and a small underground stream. Methuen Township in the area known as "Blue Mountain" north of Kasshabog Lake. This is the only operating mine within the province. It is open-pit mining for nepheline-syenite.

Pickere! Spawning Areas

Significant areas may be found near Burleigh Falls, Stony Lake, Burleigh Township.

Waterfalls

High falls on Youth Creek, South Burleigh Township, Concession 8, Lot 5. This area is a typical cost topography, the falls itself being a 25-foot wide vertical drop and approximately 30 feet wide. Campus Falls, Northbury Township, Concession 3, Lot 13. Falls and rapids are next to Highway 28 on the adjacent creek.

The Burleigh-Harvey Recreation Zone

Location: 30 miles north of Peterborough via Highway 28 with access to the canoe route system through the public access point on Wong Lake, five miles south of Apsley on Highway 28.

Features: 32,500 acres of recreation zone in Burleigh-Harvey Township containing 100 miles of maintained canoe routes, 80 marked campsites. The objectives of this zone are to preserve and ultimately enhance the existing environmental and aesthetic values of the area and consequent public enjoyment of these attributes by managing it as a low intensity recreation zone. For further details of the eight or more canoe routes in the Burleigh-Harvey Recreation Zone, contact the Bancroft District Office of the Ministry of Natural Resources.

Boat access points are available on the following lakes: Deer, Monk, Taudash, Beals, Anstruther, Wolf, Loon Call, Jack, Long, Coon, Big Cedar, Stony and MacDonald Bay of Kasshabog Lake.

Lindsay District Crown Lands

Several interesting areas of educational value exist and are listed below:

(1) Belmont Township

Approximately 2,000 acres of scattered lands with rugged Canadian Shield topography. It includes the land between Round and Belmont Lakes and to the north of this, and to the west of Cordova Lake, islands in Crowe Lake, Cordova Lake and lands around North River and Otter Creek.

(2) **Dummer Township**

Approximately 550 acres in three locations. The east half of Lots 11 and 12, Concession 10, around the Ouse River. East half of Lot 17, Concession 7, and the east half of Lot 19, Concession 6, and the west half of Lot 12, Concession 12, west of Highway 40, and the south half of Lot 6, Concession 10, on the Ouse River, east of Highway 40.

(3) **Ennismore Township**

Lot 14, Concession 5, 10 acres on Chemong Lake.

(4) **Harvey Township**

Approximately 200 acres south of Big Bald Lake, on the south side of Little Bald Lake and north of Big Bald Narrows.

(5) **Otonabee Townships** - two areas

The northeast corner of Lot 11, Concession 6, 25 acres on the Indian River, and southeast half of Lot 6, Concession 9, adjacent to Harris Island on the lakefront of Rice Lake, 50 acres.

(6) **Smith Township** - two areas

Lot 35, Concession 17, 35 acres on Deer Bay, and Lot 37, Concession 18, approximately five acres on Black Duck Bay.

Minden District Crown Lands

The lands in Minden District cover 1,832 square miles of which 31% are crown and 69% are private.

A breakdown of the total acreage of the three townships involved follows:

Cavendish	470,000 acres
Galway	445,000 acres
Harvey	700,000 acres

In Cavendish Township (otherwise known as Gooderham

West working circle 1) there are 45,818 acres of land. A breakdown of this area follows:

water	6,980 acres
non-forested land	192 acres
forested land	38,646 acres

Of the latter figure, 5,480 acres can be classified as non-productive forest. In the productive forest land, the principal species are poplar, then maple, yellow birch, hemlock, white and red pine, white birch, balsam, spruce and other hardwoods and conifers. A further 4,458 acres can be classified as protection forest.

In Galway Township, there are 31,078 acres of land of which water takes 3,448 acres, non-forested land 40 acres, forested land 27,590 acres. Of this latter figure, 2,472 acres can be classified as non-productive forest lands. In the productive forest lands, the dominant species are poplar, white and red pine, maple, yellow birch, balsam, spruce, white birch, hemlock and other hardwoods and conifers. A further 1,160 acres can be classified as protection forest.

In Harvey Township there are 30,199 acres of lands of which water can be classified as 2,297 acres, non-forested land 634 acres, and forested land 27,268 acres. Of the latter figure, 7,898 acres are non-productive forest. In the productive forest lands, the following species are dominant: poplar, white and red pine, maple and yellow birch, balsam, hemlock, spruce, white birch and other hardwoods and conifers. There are a further 2,276 acres of protection forest.

The major uses of crown lands in the Minden District are for timber production, public recreation, and fish and wildlife management. There are a large number of lakes such as Catchcoma and Mississauga as well as a chain of lakes used for recreation and cottage areas. Recreation includes snowmobiling in winter and biking and hiking trails in the summer such as the five-point trails which are found mostly in Galway and Cavendish Townships. This is a well maintained trail, but there are no facilities enroute, only at the parking lot, but development is ongoing. Canoe routes such as the Mississauga River which is a major waterway in Harvey Township has also been established as well as Nogies Creek in the west of Galway. Harvey Township is mostly a limestone plain area. Other features of interest in the area are a sawmill at Buckhorn, a few quarries, gravel pits and the Buckhorn Wilderness Centre. 1,000 acres owned by the Otonabee Region Conservation Authority. A good reference for further details may be found in the North Kawartha Planning Area Study which can be obtained from the Ministry District Office of the several municipalities in the area such as Buckhorn, Burleigh Falls and Bobcaygeon. The Coe River Canoe Route also passes through Crown lands from Chandos Lake to Healy Falls covering a distance of 67.5 miles. Public access points in the Minden area include Bass Lake, Loon Lake, Mississauga Dam, Mississauga West Bay, Catchcoma Narrows and Gold Lake.

V Provincial Fish and Wildlife Management Areas

Deer Lake Fish Hatchery (Lindsay District, Ministry of Natural Resources)

Location: 12 miles northeast of Havelock at the south end of Cordova Lake (See Fish and Wildlife Management Guide).

Features: 80 acres of forested and heavy terrain with numerous rock outcrops. There are four four-acre ponds where approximately 100,000 lake, rainbow, speckled and splake trout are reared (water from Cordova Lake). The Crowe River flows along the edge of the hatchery area.

Nature Trails: One extends from the last pond along Crowe River to the bottom of the falls below Cordova Lake Dam,

then, up the hill beside the lake. Muskellunge are raised in the summer.

Nature Interpretation Program: No leaflets or slides are available. Telephone ahead to the superintendent, George Cation, at (705) 778-3391, for a guide.

Millbrook Provincial Fishing Area (Lindsay District, Ministry of Natural Resources)

Location: Exit from Highway 401 on Highway 115 north to Peterborough County Road 10, and follow the signs to Millbrook Village.

Features: 150 acres of rolling topography on Baxter Creek. The area contains 2,270 feet of frontage on Baxter Creek and two ponds which are stocked with speckled and rainbow trout. Parking and picnic facilities are available, but the area is not staffed.

The Peterborough Crown Game Preserve (Bancroft District, Ministry of Natural Resources)

Location: Go north of Peterborough on Highway 28 for 34 miles (28 miles south of Bancroft). Exit at the sign at Apsley on Jack Lake Road for four miles and then six miles further into the preserve.

Features: 60 square miles of moderately rolling Canadian Shield topography containing Jack Lake, Jack Creek and Petroglyphs Provincial Park. The game preserve is an area close to hunting and was established in 1927 as a refuge for deer and other game animals.

Nature Trails: A road running south from Apsley provides excellent wildlife viewing opportunities for the motorist. There are walking trails from Highway 28 to Jack Lake and from Petroglyphs Park to Eels Creek. There is also a cross-country ski trail from Apsley to Haultain and beyond.

Nature Interpretation Program: The gently rolling terrain with numerous rock ridges is forested with a mixture of conifers and hardwoods. Pines, hemlock, white spruce, white birch, sugar maple and red oak characterize the uplands with cedar, balsam, tamarack and black spruce in the depressions. Beaver activity in the cedar swamps. Limestone areas with underground streams. Deer yarding area.

Conservation Demonstration: The area is logged and is still under licence. A high percentage of the area is forested, but there is no agriculture. Wildlife management of deer - estimated 1,400 deer wintered there in 1974 and approximately 13 wolves in three packs range over parts of the preserve.

Historic Site: Petroglyphs Provincial Park.

Other: Visitors may be interested in the nepheline-syenite quarry at Nephton. This white, crystalline, igneous rock is used in the manufacture of glass, ceramics and other products. The mining company, Indusmin Limited, welcomes the public and prefers to deal with groups of 10 or

more. Appointments for tours are made by telephoning (705) 877-2210 or writing Indusmin Limited, Nephton, Ontario K0L 2T0. For further details on the Peterborough Crown Game Preserve, ask for the article by V.B. Collins, Fish and Wildlife Supervisor, Ministry of Natural Resources, Bancroft, Ontario.

The Minden District of the Ministry of Natural Resources had completed a **sensitive areas report** on parts of Peterborough County; some of the more interesting features are described below.

(a) **Nogies Creek Fish Sanctuary** (Minden District, Ministry of Natural Resources)

Location: Lots 26 to 31, Concessions 16 and 17 of Harvey Township.

Features: 1,400 acres of crown land above the Nogies Creek Dam. Research buildings on the site are looking into maskinonge. This stream has been used as a source of stock for maskinonge and small- and large-mouthed bass. The big marsh, a 100-acre lake.

Nature Interpretation Program: The area is being used at present by the Royal Ontario Museum under leadership of Dr. Crossman who is looking into the effect of angling on the maskinonge over a period of three to four years; shock effect and blood chemistry are being studied among other topics. The maskinonge study is being sponsored by the Toronto Anglers and Hunters Association whereby fish are tagged and released in Pigeon and Sturgeon Lakes. The sanctuary is unique in that it contains no carp or pickerel populations and is a good geographical unit from which the fish cannot escape on their own. Osprey nest.

Other: For further details, ask for the Lindsay District Newsletter, November 12, 1955.

(b) **Nogies Creek Deer Yard** (Minden District, Ministry of Natural Resources)

Location: Approximately 6,200 acres to the east of Nogies Creek.

(c) Several areas for waterfowl rated as class four according to the Ontario Land Inventory. They are only of local significance, but contain natural wetlands and are not dependent upon beaver activity. Contact the Minden Office for further details.

(d) Several good trout lakes, i.e., water temperature, quality and shoreline development are suitable for trout in lakes such as Fortescue, Gold, Mississauga, Pickard and Salmon while poorer lakes are Beaver, Catchcoma and Crystal.

VII Provincial Parks and Park Reserves

Harris Island Park Reserve (Lindsay District, Ministry of Natural Resources)

Location: Adjacent to Serpent Mounds Provincial Park on Rice Lake.

Features: 186 acres separated from the mainland by a channel. There are two drumlins separated by a swamp and bog joins the two islands (Prickley Point and Harris Island), the level of water having been raised by the dam at Hastings.

Nature Trail: Hiking only.

Nature Interpretation Program: The island is entirely forested with oak, pine and maple. Poor wildlife area.

Conservation Demonstration: The birches of this island preserve the scenic view from Serpent Mounds Provincial Park.

Kawartha Highlands Park Reserve (Bancroft and Minden Districts, Ministry of Natural Resources)

Location: The west half is in the Minden District and the east half is in the Bancroft District. Take Highway 507 north from Buckhorn for 15 miles and at Catchcoma, take the forest access road for six miles.

Features: Of a total area of 3,804 acres, 1,812 acres are in Cavendish Township (Minden District, Ministry of Natural Resources), the rest being in the Bancroft District. The area contains three lakes which exist due to beaver activity, two of which the area was previously named after, Bottle and Sucker Lakes. The area contains rugged and forested Canadian Shield topography which is being preserved in its natural state. Public access is permitted, but there are no facilities and no development.

Nature Interpretation Program: A very good wildlife area. Canoeing and camping.

Quackenbush Park Reserve (Lindsay District, Ministry of Natural Resources)

Location: Take Highway 28 two miles north of Lakefield and then take County Road 6 east for 13 miles.

Features: A very sensitive area of 121 acres. No public access.

Historic Site: An Iroquois Indian village.

Wolf Island Park Reserve (Lindsay District, Ministry of Natural Resources)

Location: Take Highway 36 northeast from Lindsay and the park reserve is five miles east of Buckhorn or four miles west of Burleigh Falls.

Features: A 500-acre island and 300 acres on the mainland in Lovesick Lake in the Kawarthas. The area is rugged

Canadian Shield topography with a 100% forest cover of hardwoods.

Nature Trails: Hiking only.

Nature Interpretation Program: Game typical of the area such as deer and small mammals.

Mark S. Burnham Provincial Park

Location: On Highway 7, four miles east of Peterborough.

Features: A 100-acre serviced recreational park being mostly forested, but dropping severely in the north end of the property to a marshy area.

Nature Trails: A marked walking trail system consisting of two loops, one taking 15 minutes, the other 25 minutes, where the labelling of trees, etc. has been completed.

Nature Interpretation Program: Trees. Poor wildlife area.

Other: A regional landowner donated this property in the 1950s. Superintendent, Tom Smith.

Petroglyphs Provincial Park

Location: 35 miles northeast of Peterborough via Highway 28 north and County Road 6.

Features: 3,842-acre historic park (not all acquired) on barren, rocky and rolling Canadian Shield topography. Vegetation cover consists mostly of red pine and white pine with oak and other hardwoods. The area is bordered by Jack's Creek to the east and Eels Creek to the west and contains Minnow and McGuinness Lakes. The petroglyphs are one of the largest single concentrations of prehistoric rock carvings in Canada, having been traced to the Algonquin-speaking bands who lived 500 to 1,000 years ago in that region.

Nature Trails: One hiking trail 3.3 miles from petroglyphs site to High Falls and Eels Creek, with some labelling self-guiding. Open July and August only.

Nature Interpretation Program: Two interpreters and one site interpreter to explain the petroglyphs.

Conservation Demonstration: To provide for the physical protection of the archaeological resource for present and future generations. To provide facilities necessary for day visitors to view the petroglyphs. The word "petroglyph" comes from the Greek "petra" meaning rock, "glyph" meaning cut. There was past woodlot management but this ceased in 1960.

Historic Site: The rock carvings, or petroglyphs, are a distinctive feature of the Algonquin culture. A pamphlet is available on Petroglyphs Provincial Park as well as on the petroglyphs themselves. Suggested readings are:

Coatsworth, E., **Nomads of the Shield**, by Gin and Co., 1970.

Dewdney, S., and Kid, K., **Indian Rock Paintings of the Great Lakes**, U. of T. Press, 1962.

Landes, R., **Ojibway Religion and the Midewiwin**, University of Wisconsin Press, 1968.

Vlastokas, J. and R., **Sacred Art of the Algonquins**, Mansard Press, 1973. This is a detailed study of the petroglyphs.

Wright, J., **Ontario Prehistory, an Eleven Thousand Year Archaeological Outline**, National Museums of Canada, 1972.

Serpent Mounds Provincial Park (Lindsay District, Ministry of Natural Resources)

Location: The park is on Rice Lake, eight miles south of Highway 7, on County Road 34 which passes through Keene. Visitors can bypass Peterborough by turning off Highway 28 at South Monaghan and following County Roads 34 and 2 for 16 miles.

Features: A 70-acre natural environment park on the Hiawatha Indian Reserve. Rolling glacial topography - drumlins. Vegetation cover consists of hardwood plantations; it is all reforested - red pine and scotch pine. The oak trees near the mounds are part of the original forest cover.

Nature Trails: A historical interpretation trail with display cases along the route.

Nature Interpretation Program: Archeological and Indian studies.

Historic Site: The Indian burial grounds and excavated mounds. The name of the park originates from the serpent-shaped mound 200 feet long, 25 feet wide and up to six feet in height. This mound and the surrounding eight smaller earth mounds were probably formed by the Point Peninsula people during the three centuries ending about 300 A.D. By the middle of the first century B.C., the seasonal inhabitants had begun to gather shellfish for food, and refuse shells began to accumulate along the east shore of the point, creating a layer of shells or a shell "middens". In the next century, they began to build burial mounds and bury their dead in and under these mounds. The burial mound activity continued through to the third century A.D., but then slowly declined. The site never completely lost its ceremonial significance, however, for even after 1000 A.D., small groups still visited the burial mounds to bury their dead in pits nearby.

In the middle 1840s, dams were built at the outlet of Rice Lake, raised the water level by six feet. At this time, the lake had cultivated hundreds of acres of wildlife and clam beds. There is no doubt that people were attracted to serpent mounds by the readily available food supply.

Other: A leaflet is available on the Serpent Mounds archeological site as well as a pamphlet on the park itself. For further information, contact the superintendent, Tom Smith (April to November), at the park, or the park

interpreter. Write to Serpent Mounds Provincial Park, Keene, Ontario K0L 2G0, or telephone (705) 295-6879. The dam built at the outlet of Rice Lake was the Hastings Dam which was part of the Trent Canal Lock System.

Silent Lake Provincial Park (Bancroft District, Ministry of Natural Resources)

Location: Off Highway 28, 50 miles north of Peterborough and 15 miles south of Bancroft.

Features: A 1,800-acre natural environment park on rolling Canadian Shield topography. The vegetation cover consists of oak, maple, pine and other conifers. 30% swamp and flooded land due to beaver activity. There are three lakes, Silent Lake, Quiet Lake and Soft Lake, all of which join; there are two lower lakes that are not developed. This is the wilderness experience area.

Nature Trails: Silent Lake Park offers a network of maintained cross-country ski trails, and hiking trails are under development.

Nature Interpretation Program: No specific program is available, but animal life is diverse. Typical of the mammal population are beaver, muskrat, otter, red fox, blackbird and deer. Bird watching is excellent and loons can often be heard giving their haunting call. The park reflects the generally rugged and varied topography of the Canadian Shield. The irregular shoreline of Silent Lake, ponded drainage and the presence of schistose and granitic rocks illustrates this fact. Swamp and wetland studies, pond studies via canoe. Tree identification.

Conservation Demonstration: During the 1860's the area was cut for white pine. Subsequent logging activities concentrated on hardwood species. Today, the forest cover is dominated by white pine, sugar maple, hemlock and white birch.

Historic Site: For 40 years, the Six Point Lodge stood at the north end of the lake. When it closed in 1967, the land was deeded to the crown.

Other: A pamphlet is available on this park. For more information, contact the Park Superintendent, The Silent Lake Provincial Park, R.R. No. 3, Bancroft, Ontario K0L 1C0. During the off-season, write to The District Manager, Ministry of Natural Resources, Bancroft, Ontario K0L 1C0.

IX Federal Lands

Trent-Severn Waterway (Parks Canada — Department of Indian Affairs and Northern Developments)

Location: The Trent-Severn Waterway consists of a number of short canals, isolated locks and many miles of natural waters between Trenton on the Bay of Quinte and Port Severn on Georgian Bay.

Features: It provides water for navigation, municipal, industrial, and recreation purposes and prevents serious flooding along the natural watercourses. The Trent Canal staff exercises control of the water resources on an area of 7,200 square miles. The operation and maintenance of the Trent Canal involves primarily the maintenance of some 33.25 miles of canal prism and some 330 miles of river and lake channels; the operation and maintenance of all canal structures; the regulation of numerous large lakes and the control of vessel movements. The length of the through navigation channel from Trenton to Port Severn is about 241 miles. However, the total length of navigation channels including side channels is about 363 miles. The total lift from Lake Ontario to the summit of Balsam Lake is about 598 feet. From this lake, boats are lowered about 260 feet through the various reaches to Georgian Bay. On the Trent Canal there are 41 ordinary locks, two hydraulic lift locks, one marine railway, and a series of water control dams and emergency gates.

Interpretation Program: Contact the Interpretive Officer, Chris Rutledge, at the Peterborough Office. There is an interpretive site at the Peterborough Lift Lock where there is also a revolving sign. There are guides at the locks in July and August for visitors. The Kirkfield Lift Lock also has its own guide and students are available from July and August at the Port Severn Lock and the Trenton Lock. Rotating display turnstiles have been installed at Trenton, Bobcaygeon, Fenelon Falls and Port Severn, and more will be installed at other lock stations. Visits may be made to the Peterborough Lift Lock from May 15 to June 30. Schools are welcome to arrange a tour. A lock will be operated upon request or any lock station may be visited upon request to the head office. Visits can also be set up through the interpretive officer to the school for which there is a slide display and a working model lock. This lock is to scale as per lock 14 at Campbellford and is available through the head office.

Historic Site: The Trent-Severn Canal was completed on June 6, 1920. For further details, write to the head office in Peterborough for a history of the Trent and Severn waterways.

Other: For further information, write to Chris Rutledge, The Interpretive Officer, Trent-Severn Waterways, Ashburnham Drive, Peterborough, or a telephone (705) 742-9267.

Pamphlets are available on the Trent-Severn Waterway, the Peterborough Lift Lock, the Navigation Canals: Rideau, Trent, Quebec and St. Peters, the lock station facilities and history of the Trent-Severn Waterway. The administrative and executive control is vested in the superintendent with offices located in the Trent-Severn Waterway Headquarters Building in Peterborough who reports to the Regional Director, Parks Canada, Cornwall. For purposes of operation and maintenance, the Trent-Severn Waterway is divided into four areas, and the Murray Canal is considered, for

operation and maintenance purposes, as part of the Southern Division. The office of the area manager of the Southern area is located at Campbellford. The office of the area manager of the Central area is located at Lakefield. The office of the area manager of the Northern area is located at Kirkfield. The office of the area manager of the Haliburton area is located at Haliburton, Ontario.

A list of Authority references now follows:

- 1) *The Crowe Valley Conservation Authority*, Box 279, Havelock, Ontario K0L 1Z0. Telephone (705) 778-3024.
- 2) *The Ganaraska Region Conservation Authority*, Box 328, 56 Queen Street, Port Hope, Ontario L1A 3W4. Telephone (416) 885-6067.
- 3) *The Otonabee Region Conservation Authority*, 727 Lansdowne Street West, Peterborough, Ontario, K9J 1Z2. Telephone (705) 745-5791.
- 4) *The Bancroft District Office, Ministry of Natural Resources*, Box 500, Hwy. 28, Bancroft, Ontario K0L 1C0. Telephone (705) 332-3940.
- 5) *The Minden District Office, Ministry of Natural Resources*, Minden, Ontario K0M 2K0. Telephone (705) 286-1521.
- 6) Superintendent, *Trent-Severn Waterway*, P.O. Box 567, Ashburnham Drive, Peterborough, Ontario. Attention: Chief Interpretation Officer.
- 7) Director, Ontario Region, *Parks Canada*, P.O. Box 1359, Cornwall, Ontario K6H 5V4.

Prescott and Russell United Counties

I Conservation Authority Lands

(i) **CONSERVATION AREAS (Developed)**

Casselman Bridge and Dam (South Nation River Conservation Authority)

Location: At the north end of the Village of Casselman, the bridge is currently being replaced (1976).

Features: A 3.5-acre day-use area on the north side of the South Nation River. There is a sewage disposal plant downstream as well as a stream-gauge and a weir.

Conservation Demonstration: The dam was built in 1964 to raise the water level for recreation and fire protection.

(iii) **Conservation Authority Agreement Forests**

There are 6,941 acres of agreement forest, owned by the South Nation River Conservation Authority and managed by the Cornwall District, Ministry of Natural Resources, of which there are 3,717 acres in Prescott and Russell. These forests are mixed in with Crown Forests and are not accessible as individual lots. The area was sub-marginal farmland. It was planted with softwoods such as pine, spruce and hybrid poplar. A breakdown by township follows:

Cambridge	900 acres
Clarence	600 acres
North Plantagenet	742 acres
South Plantagenet	1,475 acres

(iv) **Water Control Areas**

Plantagenet Springs Rock Cut (South Nation River Conservation Authority)

Location: On the South Nation River just south of Highway 17. For access from the Village of Plantagenet, go south of the Plantagenet Springs, to the railway station, on the county road and then go east along the railway tracks or on the lane between the two houses north of the tracks, on the east side of the road.

Features: The Authority cut two channels through a rock outcropping, in the river under the Railway bridge, to provide better drainage for some 3,050 acres of good agricultural lands. At this point there is also a silting station and recording gauge for measuring stream flow.

South Nation River Channel Improvements

Location: Take the fourth exit on Highway 417 east of Ottawa and go north to Limoges and then go east to Martels Corner in Cambridge Township. The Conservation Authority has particular difficulty with silting and slumping in the river here because of the deposits of the Champlain Sea leaving behind unstable marine clays, e.g., the Lemieux slide on the South Nation River can be seen by driving westerly from the Lemieux bridge on the north side of the river. Also of interest is the Bernadine Land Slip on the Caledonia Creek which is in the Village of St. Bernadine behind the Roman Catholic

Church. For access, exit Highway 417 at Macrimmon Road north to the Village of St. Bernadine.

(v) **Reservoir Lands**

Russell Dam South Nation River Conservation Authority)

Location: In the Village of Russell on the Castor River.

Features: A dam 260 feet long and six feet high on 12.1 acres of land, with tree plantings. The purpose of the dam is to raise water level for recreation, fire protection and to raise the local water table for wells. There is a pool on the north side of the river which is leased back to the Township.

II County Agreement Forests

The La Rose Forest

Location: The main forest block is found south of Bourget in Clarence, Cambridge, Cumberland and Russell townships. Other forest parcels are located in the townships of North and South Plantagenet, Alfred and Caledonia.

Features: The La Rose is the largest agreement forest in Ontario, taking in 40 square miles of pine and spruce plantations, marshes, pastures and mixed forest. It is crisscrossed by creeks and rivers and more than 100 miles of roads and trails. More than 100 residents are employed in the La Rose Forest during busy seasons beside the full-time staff. The main product is pulpwood. Two distinctly visible landmarks are the fire towers, one near the forest headquarters and the other at the northwest corner of the main block.

Nature Trails: More than 100 miles of roads and trails exist (see La Rose Forest Snow Trails pamphlet for more details, available from the Cornwall District Office of the Ministry of Natural Resources).

Nature Interpretation Program: 50 years ago, what is now the main forest block was called "The Bourget Desert". The sandy soil, cut over, burned over and farmed out began to drift. Ferdinand La Rose, the local agricultural representative, believed restoring the trees would tie down the soil and produce a valuable crop. The program began in 1928. Today these trees reach up to 75 feet, with diameters of 18 inches. Thus a serious wind erosion problem was overcome.

Lectures and slides are provided by Ministry of Natural Resources' personnel. These personnel also visit dozens of various schools during the winter to explain timber and wildlife management. The forest is used as a field research laboratory for biologists and foresters and in summer is the base for a Junior Ranger camp. Throughout La Rose are detailed information plaques describing the various work being carried out.

The area is also a wildlife haven. More than 37 different species of birds, including mourning doves, several species

of hawks and small birds, use La Rose as a nesting ground. Some of the most common native animals found in La Rose Forest are deer, foxes, coyotes and beavers.

Conservation Demonstration: The plantation was established in 1928, and has been expanded in varying stages ever since. Those trees that are over 35 years of age have been thinned. The most common species are red pine, white pine, scotch pine, white spruce, jack pine, Norway spruce, European and Japanese larch and tamarack, which would vary in age from 35 to 50 years.

Historic Site: The settlement and farming and logging of this area is of interest and details are included in the La Rose Forest Snow Trails Guide.

Other: Five picnic sites have been established in La Rose Forest, each of which has individual interests:

(i) Le Bourget

Location: 1.5 miles southwest of Bourget. Follow the road leading north off the Russell Road, a half mile west of the town, and turn right onto the forest access road which leads to the picnic grounds.

Features: Situated on a ridge of fine upland sand, once the shoreline of the Champlain Sea which covered part of Eastern Ontario during the latter part of the Wisconsin glaciation, the Bourget site is ideal for family picnics.

Other: A detailed pamphlet on this area is available.

(ii) Le Brook

Location: 1.5 miles south of Bourget and just north of the La Rose Forest headquarters.

Features: The picnic site, once abandoned farmland, is now a healthy stand of red pine with all the necessities for an outdoor meal.

Historic Site: Le Brook was once the name for Bourget. Early residents had named the village after the Bear Brook Creek, just north of the picnic site. In 1910, the name was changed to Bourget, in memory of Monseigneur Ignace Bourget, Bishop of Montreal, who died in 1885.

Other: A detailed pamphlet is available on this area.

(iii) Le Castor Picnic Site

Location: In Russell County, four miles east of Embrun on the road to Casselman. The picnic site is on the north side of the road and has a half mile nature trail as an attraction. Beginning at the rear of the site, the trail wanders through spruce, tamarack, poplar and white pine stands to a small brook where beavers have constructed lodges and a dam.

Other: A detailed pamphlet is available on this area.

(iv) Limoges Picnic Site

Location: The Village of Limoges is 25 miles southeast of Ottawa on the western edge of La Rose Forest. The picnic site is south of the railway tracks running through the village.

Features: This site is located in the village forest, a stand of red pines on a hill overlooking a small stream which flows through Limoges into the South Indian Creek.

Historic Site: "Steel rails and timber" were the foundations on which the Village of Limoges was built. Except for a few scattered settlements, Limoges' area in the 1850's was dense forest with magnificent stands of red pine. Then, the Ottawa Valley timber boom came. In 1895, Limoges became a railway junction. The Town of Rockland helped finance a rail spur from the Ottawa River to Limoges. Naturally, it got the nickname "the little trunk". Timber rolled north from the flat cars of the giant mills of W.C. Edwards at Rockland. At the same time, potash, greatly in demand for making soap, was being railed from Ottawa to Limoges, along with wood for city furnaces and farm produce. In a matter of decades, the land was cleared, covered by neat farms and "the little trunk" fell into disuse. The trees were missed, however, and east of the town a huge sandplain came to be known the Bourget Desert.

(v) The Pineview Picnic Site

Location: Three miles south of Cheney off Highway 2 in the La Rose Forest in Russell County. Cheney is approximately 25 miles east of Ottawa.

Features: A mile-long nature trail leads away from the site, along a gully with a small stream, beside an old beaver dam and over numerous wooden, walking bridges. Along the way are found a dense growth of red pine, poplar, yellow birch, balsam, dogwood, hobble bush or alders. Other plants include jack-in-the-pulpit, trilliums and dogwoods. Wildlife includes ruffed grouse, pine grosbeaks, woodcock, hermit thrush, broad-winged hawks or cooper hawks. In all, 46 species of birds have been recognized in La Rose Forest as well as deer, coyotes, beaver, moose, fox, weasels and raccoons.

Other: A detailed pamphlet is available on this area.

III Crown Lands

There are 1,450 acres of crown land in Prescott and Russell, managed by the Cornwall District Office of the Ministry of Natural Resources. A breakdown by township follows:

Caledonia	300 acres
East Hawkesbury	100 acres
North Plantagenet	450 acres
South Plantagenet	600 acres

IV Forest Stations and Nurseries

The La Rose Forest Headquarters may be contacted at Box 10, Bourget, Ontario K0A 1E0, or phone (613) 487-2100.

Prince Edward County

VII Provincial Parks and Park Reserves

Carillon Provincial Park

Location: On the Ottawa River north of Highway 17, between Chute à Blondeau and Point Fortune.

Features: 1,750 acres of recreation park with rolling terrain, open areas and hardwood bush in varying stages of succession. Species include popular, birch, alder to maple and elm with some black maple, trees species being from immature to mature. There are sheltered coves, bedrock outcrops of limestone and a marsh area.

Nature Trails: Five miles of trail are being planned, some of which is now complete and signed.

Nature Interpretation Program: None is available at present, but three exhibits are being planned.

Conservation Demonstration: Quebec and Ontario Hydro have a dam at the southeast end of the property on the Ottawa River. There is a dyke across the end of the bay in the park to control the water flow.

Historic Site: The park is on an historic water route.

Other: A pamphlet is available on this park from the Cornwall District Office of the Ministry of Natural Resources or contact Carillon Provincial Park, Box 100, Chute à Blondeau, Ontario, or telephone (613) 674-2925 and ask for the park superintendent.

South Nation Provincial Park

Location: South of Highway 17 and northeast of the South Nation River near Jessop Falls.

Features: 13 acres of undulating land which slopes down to the river with grassed areas and a few pines.

Historic Site: In the 1800's, settlers became established in the area which today qualifies as one of the oldest parts of the provinces' northern farming frontier. The land was purchased from the Iroquois and Algonquin Indians on October 9, 1783, in what was known as the Crawford Purchase. When logging first began in the area, white pine 40 to 48 inches in diameter and 90 to 125 feet in length, was cut and sold for bowsprits and masts.

Other: A pamphlet is available on this park from the Cornwall District Ministry of Natural Resources. Write to the Park Superintendent, South Nation Provincial Park, Plantagenet, Ontario, or telephone 673-5072 and ask for the superintendent.

References:

South Nation River Conservation Authority, Berwick, Ontario K0G 1G0, telephone (613) 984-2400.

Cornwall District, Ministry of Natural Resources, 40 Fifth Street West, P.O. Box 1749, Cornwall, Ontario K6H 5V7, telephone (613) 933-1774.

I Conservation Authority Lands

(I) CONSERVATION AREAS (Developed)

Bloomfield Mill Pond (Prince Edward Region Conservation Authority)

Location: In the Town of Bloomfield south of Highway 33.

Features: One acre of property on Mill Street with a mill pond and a small, flat park; with tree cover along the banks of the pond.

Nature Interpretation Program: None is available. However, the cribs around the trees are of interest as they protect the trees as the land level was raised by filling.

Conservation Demonstration: An earth-filled dam was built from 1974 to 1976. It is 16 feet high and 240 feet long and 12 feet wide with a reservoir of some 5.5 acres and a stream draining an area of 21.3 square miles of watershed. The pond was originally three feet deep and was dredged out to 10 feet. There are gabion baskets on the stream below the dam and the spillway where channelization took place.

Historic Site: This was the site of an older dam for a grist mill which no longer exists.

Macaulay Mountain (Prince Edward Region Conservation Authority)

Location: From Picton via Union Street to County Road 8 (Waupoos Road), enter just past the town limits.

Features: The site itself covers 425 acres, of which 315 acres are cleared plateau lands; these were previously an old arm testing range now covered in red cedar. Macaulay Mountain, standing 100 to 150 feet above the local topography, is a steep east to west escarpment, heavily forested. The property also has an intermittent stream, a small pond and an earthen dam built in 1973.

Nature Trails: The five miles of trail are currently being extended to seven miles and take in two lookout platforms, bridges and a catwalk. The trails are cut and marked but there is no labelling, except at the beginning. The area is very good for wildlife including deer, fox and a wide variety of birds.

Nature Interpretation Program: One is available. There is a unique hemlock stand. The soils of the area consist of Farmington, Darlington and Ameliasburgh loam and Gerow clay. The bedrock in the area is composed of limestone and shale.

Conservation Demonstration: A mature forest has developed along the escarpment including Carolinian species such as butternut, a climax forest of maple, oak, ash and hickory. Vegetation lists, bird lists, etc. are available in the teaching guide. Plantings took place in 1972, 1974 and 1975 for erosion control, recreation and to provide nursery stock.

Historic Site: This area was settled by United Empire

Loyalists and Macaulay Mountain was once part of an old estate given as a land grant in 1802.

Other: Winter activities are carried out in this area, which includes a skating rink. The authority workshop is on this site. (For further details, consult the Teaching Guide available from the Prince Edward Region Conservation Authority).

(ii) Conservation Areas (Undeveloped)

Beaver Meadow (Prince Edward Region Conservation Authority)

Location: Take County Road 10 from Picton to Woodrout, turn right onto County Road 11 and follow for one mile.

Features: The 219 acres are relatively flat and swampy but also include pasture areas, wooded and wet wooded areas, a marsh over 100 acres and agricultural land. Hardwoods such as maple and poplar are dominant, softwoods such as white pine may be found. This area also contains one large pond, a 10-acre open area which was used for agriculture. Old bridges. An east to west running esker and a small drumlin on the western fringe.

Nature Trails: The Quinte-Hastings Trail passes through the area and there is a three-mile cut trail with no labelling.

Nature Interpretation Program: One is available and deals with ecosystems, succession studies of old fields, mature hardwood areas, marsh, transitional areas, decay studies and the wide variety of habitat for waterfowl, small mammals, etc. Replanting took place in 1973 and 1974.

Conservation Demonstration: Reforestation took place in 1973 and 1974 of white pine, white cedar, hawthorn, pin-cherry, etc. and 20 acres of wildlife shrubs, including Russian olive, highbush cranberry, multiflora rose, black walnut and autumn olive. There are also wood duck nesting boxes.

Historic Site: This was an experimental farm complex in the early 20th century (1910 onwards) and the foundations remain. When the family died out, it became a co-operative farm which has been deserted since the 1920's.

Other: Snowmobile trails and winter activities take place. Consult the Teaching Guide, available from the Prince Edward Region Conservation Authority.

Consecon Mill Dam (Prince Edward Region Conservation Authority)

Location: In Consecon just off Highway 33.

Features: The half-acre contains an old mill pond and the Consecon Creek. The area is mostly flat with one small scarp slope and some old foundations.

Conservation Demonstration: The new mill was built, run by electricity, and operated on a commercial basis in 1974. The dam was built for an adequate water supply for the mill pond and for fire-protection, domestic use, ground water

recharge and recreation for the Village of Consecon. The dam is a concrete gravity weir being some four feet high, 58 feet long and two feet wide.

Historic Site: This was the site of the old Baldwin mill.

Demorestville (Prince Edward Region Conservation Authority)

Location: Adjacent to the west end of Demorestville on County Road 14.

Features: 63 acres of flat land over limestone bedrock with a pond in a small depression and an old masonry dam. Demorestville Creek runs through the property and there is a small escarpment to the south of the area.

Nature Trails: None are laid out, but hiking could take place through the areas of red cedar and juniper.

Nature Interpretation Program: None is available, but the area is suited to tree identification, pond studies, small scale aquatic studies and the effect of changing water levels.

Conservation Demonstration: A new dam.

Historic Site: This area was called Sodom in the early 19th century. It was famous for ship-building and the lumber trade. The new dam is built on the site of the old Oiling's Mill which no longer exists.

Little Bluff (Prince Edward Region Conservation Authority)

Location: From Picton, follow Union Street to County Road 8, then County Road 17 through Milford and past South Bay for four miles.

Features: The area covers 65 acres on a small peninsula of which nine acres are marsh and 56 acres are table land. Of the 3,000 feet of waterfront that face onto Lake Ontario, 700 feet is composed of cobble beach. Shale bluffs rise up to over 60 feet. The topography of the area is mostly flat except for one intermittent stream which is a small gully.

Nature Trails: There are three trails:

- i) access to the beach;
- ii) along the edge of the marsh for 0.75 mile;
- iii) on the north side a trail leads down to an old grain chute and dock.

These trails are cut and marked, but there is no labelling.

Nature Interpretation Program: None is available, but the area is suited to succession studies in the open fields, on bluffs of red cedar and juniper, and on the banks of the bluffs, where deciduous trees are found. Due to the very limited cover, the area is poor in wildlife and restricted mainly to small mammals. However, the small marsh area is suited to the study of migratory birds.

Historic Site: This was an old storage spot for grain, as deep water is found off the dock in Lake Ontario.

Massassauga Point (Prince Edward Region Conservation Authority)

Location: Five miles southeast of Belleville off Highway 14 and County Road 28. Go along County Road 28 for two miles and then along the dirt road for four to five miles.

Features: The 60-acre area is mostly flat to rolling limestone topography with one small pond in an old abandoned quarry. There is 4,000 feet of waterfront on the Bay of Quinte. A cobble beach and a small sandy beach area. Vegetation cover consists of red cedar, juniper, oak, shag-bark hickory, and white cedar; and this occurs in the form of woodlots, brushcover, scattered tree-cover and clearings.

Nature Trails: Hiking is permitted. There are cleared paths, an old internal road system and a hydro easement through the property.

Nature Interpretation Program: A program is available, and though the area has a good variety of habitat, it is rather poor in wildlife, i.e. small mammals and birds. A limestone ridge extends from northeast to southeast and breaks through the surface of the abandoned quarry. The soil is Farmington loam.

Historic Site: The area was known as the "Old Hickory Nut Plain"; it used to be a famous park in the 19th century in which there was a resort which attracted people to its spa from a wide area as far away as Toronto and New York. There are no signs left of the old cottage and hotel. The area died as a spa at the end of the 19th century. The hotel continued on until the 1920's and then the area became a park.

Other: Consult the Teaching Guide available from Prince Edward Region Conservation Authority.

Milford Millpond (Prince Edward Region Conservation Authority)

Location: Take Highway 33 south from Picton and then take County Road 10 to Milford.

Features: The area covers approximately 30 acres. The millpond covers 25.5 acres of this property. There is a small escarpment slope and limestone terraces are found in the stream which is a tributary to the Black River.

Historic Site: Old Mill dam and grist mill which are being refurbished.

(iv) Water Control Areas

Consecon Lake Dam (Prince Edward Region Conservation Authority)

Location: At the outlet of Consecon Lake, 100 feet east of Highway 33 in the Township of Ameliasburgh.

Features: Half an acre of property which contains the concrete gravity weir, an ogre-shaped spillway built in 1969 to maintain higher summer water levels in Consecon Lake for recreation, fire-protection, agriculture and ground water

recharge. The weir is six feet high, 150 feet long and 1.5 feet wide.

III Crown Lands

There are 500 acres of crown land in Prince Edward County, managed by the Napanee District Office of the Ministry of Natural Resources.

V Provincial Fish and Wildlife Management Areas

The Glenora Fish Research Centre (Napanee District, Ministry of Natural Resources)

Location: Follow Highway 49 south to Picton and then Highway 33 east to the ferry which crosses the Bay of Quinte at Glenora.

Features: Buildings for fisheries research and an aquarium.

Nature Interpretation Program: One is available. Visits and displays can be set up for schools and the general public to observe the spawning of fish. The research centre is also testing water quality and its effect on fish communities. For further information or a visit, telephone the superintendent at (613) 476-2400.

Point Petre (Napanee District, Ministry of Natural Resources)

Location: The south tip of Prince Edward County on Point Petre Road.

Features: A 3,000-acre area, and an 800-acre area to the east, with flat and shallow soils.

Nature Trails: Nature trails have been cut, a shelter built and picnic facilities set out.

Nature Interpretation Program: None has been set up, but the area contains deer yards, game birds, waterfowl on a migratory route and Long Point to the east is an excellent area for birds.

Conservation Demonstration: Sharp-tailed grouse are released as well as pheasants and small mammals.

Historic Site: This is in the United Empire Loyalist area and is also near a marine museum and a cheese factory (Black Creek). Both properties were once owned by the Department of National Defence. The 3,000-acre property was used as a training ground and an Anti-Aircraft Range, while the 800-acre area was an Air to Ground Bombing Range (live shells were not used).

VII Provincial Parks and Park Reserves

Lake on the Mountain (Napanee District, Ministry of Natural Resources)

Location: Exit from Highway 401 on Highway 14, Highway 33 or Highway 49, and go south. On Highway 33, it is four miles east of Picton, near Glenora.

Features: This is a recreational and historical park of which 254 acres are water — a lake which is an interesting geological feature. There is a 125- to 150-foot escarpment overlooking the Bay of Quinte which provides an excellent viewing spot and picnic area.

Nature Interpretation Program: None is available, but the lake is worthy of study as a geological feature.

Historic Site: This is in the United Empire Loyalist settlement area and there is an old mill which was the old home of Sir John A. MacDonald.

Other: Adjacent to the Glenora Fisheries Research Station. Regarding historical interest, contact Mr. John Immerseel, District Visitor Services at Napanee District, Ministry of Natural Resources (a brochure is available on this park).

North Beach Provincial Park (Napanee District, Ministry of Natural Resources)

Location: Exit Highway 401 on Highway 33 and two miles south of Consecon, exit west to the park for 1.5 miles.

Features: The park covers 490 acres of which 415 acres are water, a sandbar severs North Bay from Lake Ontario along which is found 4,000 feet of beach.

Other: The park office may be contacted in Wellington at (613) 399-2030 or in the off-season, the superintendent at Outlet Beach Provincial Park may be contacted at (613) 393-3314.

Outlet Beach and Sandbanks Provincial Park (Napanee District, Ministry of Natural Resources)

Location: On Lake Ontario, Ethel and Wellington Bays. For access, exit Highway 401 on Highway 49, or via Picton on the County Road, or via Highway 33 to Bloomfield and then south to Ethel for eight miles. The two parks are found between West and East lakes.

Features: 675 acres at Outlet Beach of which 375 acres are water and include 10,900 feet of beach; 1,802 acres at Sandbanks, of which 904 acres are water and five miles of beach.

Nature Trails: There is one mile of trail at Outlet Beach and dune walks at Sandbanks.

Nature Interpretation Program: This is a natural environment park and a nature interpretation program is available. Studies to which the park is suited are: geomorphic studies, such as the sand bars, succession studies, commercial

fishing, dune formation and wildlife habitat.

Conservation Demonstration: In the past, water currents bringing sand and other fine debris, which slowed as they crossed the mouth of the bay, were forced to deposit silt. After many years, the sand bars thus formed became exposed above the water level of Lake Ontario. As the level of Lake Ontario dropped, this sand spit was further exposed and gained a cover of shallow topsoil with trees and massive vegetation. Most of the park has been reforested because of the previous landowner's tree-felling program which, together with the wind, caused soil erosion. Today, many thousands of trees have been planted on sand prepared with hay and straw mulches and protected by wind barriers. After many years, the sand movement is now under control, but it is still necessary to protect the vegetation and tree cover which is vital in sand dune stabilization.

Historic Site: The mariner's lighthouse museum is found just southeast of Milford. This is in the United Empire Loyalists' settlement area. 18 miles from the park, east of Waupoos, is an early settler's museum.

Other: Pamphlets are available for Outlet Beach and Sandbanks Provincial Park from the Napanee District, Ministry of Natural Resources, or from the Park Superintendent at Outlet Beach Provincial Park, R.R. No. 1, Bloomfield, Ontario, or telephone Bloomfield (613) 393-3314.

REFERENCES:

The Prince Edward Region Conservation Authority's mailing address is: Box 2032, Picton, Ontario K0K 2T0. The telephone number is (613) 476-2249. The Napanee District Office of the Ministry of Natural Resources mailing address is: P.O. Box 3040, Napanee, Ontario K7R 3M8, or one may telephone (613) 354-2173.

Renfrew County

I Conservation Authority Lands

(i) CONSERVATION AREAS (Developed)

The “K” and “P” Trail (Mississippi Valley Conservation Authority)

See Lanark County

II County Agreement Forests

Forest covers two-thirds of Renfrew County of which 544,000 acres are considered productive forest and are not in private hands (patented lands). This includes 16,000 acres of county forest which are used for recreational purposes. There are areas of protection forests where there is thin soil or sensitive areas, and non-productive areas of forest as well. The forest cover consists mostly of conifers with some mixed and a small proportion of hardwoods. The area has 57 saw mills which produce approximately 100 million board feet per year. Renfrew County has two management units:

- i) the Dacre Forest Management Unit;
- ii) The Muskrat, Round Lake and Petawawa Forest Management Units which are to become the Pembroke Management Unit.

III Crown Lands

Renfrew County covers 2,821 square miles. The population is 90,401. The original farmsteads were built along the Ottawa and Opeongo Roads. The area contains local museums, the caves at Bonnechere, five hydroelectric power stations on the Madawaska River, a nuclear power plant at Rolphton and a nuclear research demonstration site at Chalk River. There are also two hydroelectric power sites on the Ottawa River at Des Joachims and at Chenuaux. Note also that the three most northerly townships of Head, Clara and Maria are not in the Pembroke Management District, but are managed by Whitney District Office. The crown land is predominantly forested (90% plus) and consists of Canadian Shield topography except for a small area of limestone in the south of the district. The remaining area is sub-marginal agricultural land. Geographically speaking, therefore, the area is composed of the Canadian Shield, the Petawawa Sandplain and a limestone plain.

The Matawatchan Nature Reserve

Location: Part Lots 9 and 10, Concession 2 of Matawatchan Township. Adjacent to Hudson Lake.

Features: 150 acres retained as a bench mark for future comparison, consisting of a hardwood stand where there will be no cutting. This area of the Canadian Shield also contains uplands, deciduous cover, hilly areas with outcrops,

caverns and natural springs. Public access points for boat launching have been provided at 16 places in Renfrew County. These are James Lake, Couchain Lake, Paugh Lake, McPhee Bay, Kaminisseg Dam, Conroy Marsh, Burnt Bridge, Moccasin Lake, Hardwood Lake, Burns Lake, Madawaska Bridge, Wilson Bay, Centennial Lake, Green Lake, Norken Lake, Wabun Lake.

V Provincial Fish and Wildlife Management Areas

Petawawa Fish Hatchery

Location: Go north from Pembroke on Highway 17 to Laurentian Drive and then go half a mile from there, following the signs.

Features: 300 acres of low-lying land that extend down to the Ottawa River. There are treed and flat areas, grassed areas, sandy areas and the whole site is backed by a hill. There are goose nesting areas, ponds and developments. The main function of the site, however, is for the rearing of lake and brook trout.

Nature Interpretation Program: There is a large fish display at the hatchery and slides are available at the Pembroke headquarters for school visits. The staff is available from 9:00 a.m. to 12:00 p.m. and 1:00 p.m. to 4:00 p.m. all year for visits. The best times are May to June for the yearlings and two-year-olds or in February for hatching.

Other: The superintendent may be contacted at (613) 687-5935. Renfrew County also contains several waterfowl marshes which are on crown land. Canoe access is best for these areas where some commercial wild rice harvesting is also going on, as well as a nesting box program.

- 1) *Bellow's Bay.* On the Ottawa River, five to six miles east of Pembroke. Access by water route only.
- 2) *Conroy Marsh.* 5,000 acres in Raglan Township of which 70 to 85 acres is a crown land game reserve. Access is by canoe from the Madawaska River at Combermere.
- 3) *Grassy Bay Marsh* (Calabogie Lake). 300 to 400 acres with access from Highway 508 at Calabogie.
- 4) *Mud Lake.* 600-acre marsh, eight miles east of Pembroke near Cobden on the Muskrat River at Highway 17. There is space for parking and a boat launch.

VII Provincial Parks and Park Reserves

Bark Lake Park Reserve (Bell Bay) (Pembroke District, Ministry of Natural Resources)

Location: 10 to 15 miles west of Barry's Bay on the south side of Highway 60.

Features: This is a hydro reservoir lake for the Bark Lake Dam. The property covers approximately 2,200 acres with frontage on Bark Lake. The area consists of typical Canadian Shield topography — flat to rolling relief. There are 150 acres of timbered uplands. Vegetation cover includes poplar, white birch, mixed pine and small areas of marshland. There is one small creek.

Historic Site: Sections of the old Opeongo Road, the original settlement and colonization route, pass through this park reserve.

Centennial Lake Park Reserve (Pembroke District, Ministry of Natural Resources)

Location: Go via Calabogie on Highway 508 to the north side of Centennial Lake in Brougham Township.

Features: 10,000 acres of Canadian Shield topography consisting of very rugged uplands, outcrops, eight to 10 trout lakes, two creeks — Black Donald and Little Black Donald; Centennial Lake and Black Donald Lake which were caused by flooding of the Madawaska River after the hydro dam was built. The vegetation cover includes mixed forests with stands of hardwood and white pine as well as barren areas, swamps and marshes.

Nature Interpretation Program: More intensive study of the area has been made for it is a good wildlife area with a deer yard. Black bear have been found here and the cardinal flower has been identified.

Conservation Demonstration: Cutting and planting took place until recently (1975) under timber licence.

Historic Sites: The area which borders on Centennial Lake was flooded in 1967 and covered the whole Village of Black Donald and a high grade graphite mine.

Other: Ski area 10 miles away.

Foy (Round Lake) Park Reserve (Pembroke District, Ministry of Natural Resources)

Location: The park reserve is across the lake from Bonnechere and access is restricted. Entrance can be obtained by walking in from the township road.

Features: 306 acres of flat to rugged Canadian Shield topography with areas of outwash sands. Frontage on Round Lake. The vegetation cover is dominantly pine with poplar and birch on the backlands. This area was formerly farmed and recently planted and now there is natural regeneration of white pine. There are burned over areas.

Historic Site: The areas of local significance in the logging industry until the early part of the 20th century, as it was cut over several times and there is now an immature cover of 30 to 40 years of age.

Madawaska Wild River Park Reserve (Pembroke District, Ministry of Natural Resources)

Features: The park reserve covers 3,200 acres, but is actually composed of 400 feet on either side of the river, from

Griffith to the boundary of the district. The valley of the Madawaska River has a varied and rugged topography. Vegetation cover includes farmlands and forest and there are several rapids on the river. This is one of the best white water areas in Eastern Ontario.

Bonnechere Provincial Park (Pembroke District, Ministry of Natural Resources)

Location: At the merging point of the Bonnechere River and Round Lake, one mile east of Highway 62, 28 miles south and west of Pembroke.

Features: 250 acres of recreation park on Canadian Shield topography. The area is generally flat with a cover of pine, poplar and white birch. There are glacial outwash sands. Along the Bonnechere River and on Round Lake there are low and swampy areas with ash and elm.

Nature Interpretation Program: No program available, but the area is suited to camping, swimming and fishing. There are a few outcrops of rock, and wildlife is limited to grouse, rabbits and other small mammals.

Conservation Demonstration: This is a natural second growth forest.

Historic Site: The river was used for log drives, and artifacts from this early industry can be found at the park.

Carson Lake Provincial Park (Pembroke District, Ministry of Natural Resources)

Location: The park is three miles west of Barry's Bay on Highway 60.

Features: 15 acres of recreation park with rolling to rugged terrain on the Canadian Shield. Vegetation cover includes open fields and a mixed forest.

Nature Interpretation Program: The area is suited to swimming, camping and fishing.

Historic Site: The park lies among the beautiful Algonquin Highlands and the Carson and Trout Lakes. It is located on what was once the Opeongo Line (a settlement road from Castlefoot, on the Ottawa River, to Bark Lake which is west of the campground); the road was developed in the early 1880's and although the route was originally intended to reach Lake Opeongo, it was never extended beyond Bark Lake.

Driftwood Provincial Park (Whitney District, Ministry of Natural Resources)

Location: On the Ottawa River between Pembroke and Mattawa and can be reached on Highway 17, four miles east of Stonecliffe.

Features: 654 acres of recreational park on Canadian Shield topography with a sandy outwash area, frontage on the Ottawa River and part of the old Ottawa River shoreline. The head pond of the Rolphon hydro dam is adjacent to the park for the dam at Des Joachims. The topography varies from flat to rolling and the park was burned over in 1975 leaving

only remnants of a pine plantation, mostly jack pine and poplar.

Nature Interpretation Program: A glacial spillway. Bird watching and botanical studies may be carried out by hiking through the wooded areas of the park.

Conservation Demonstration: The remains of a plantation.

Historic Site: The park is along an historic water route which was significant in the exploration of Canada. Brûlé in 1610 and Champlain in 1615 were the first Europeans to pass through this area. The dam was built down the river in the late 1940's. Because of the rising water, great accumulations of wood floated off the new riverbed. Gradually, the wood collected along the shoreline giving rise to what is today referred to as Driftwood Park.

IX Federal Lands

Petawawa Forest Experiment Station (Environment Canada, Canadian Forest Services)

Location: Two miles south east of Chalk River and nine miles northwest of Petawawa.

Features: 38 square miles of Canadian Shield topography with many rock outcrops, rugged and rolling areas; the maximum elevation reaching 915 feet. The area is entirely forested except for the lakes, nursery and the 5% cover of swamps and bogs. Only the eastern edge of the property is in the Petawawa sandplain. The largest lakes are Corry and Cartier Lakes, but there are several other smaller lakes.

Nature Trails: There are six trails:

- (a) The Road Trail — five miles;
- (b) The Walking Trail — one-third of a mile;
- (c) 45 miles cross-country ski trails;
- (d) 70 miles of roads;
- (e) The Side Trail (Montgomery fire tower - two miles);
- (f) Headquarters' Trail (Taxonomy - 1.5 miles).

Nature Interpretation Program: 370 experimental areas exist for genetics, silviculture, fire research, ecology, natural areas, logging, etc. A large area remains for other experiments which schools could use. There is a herbarium with over 6,000 specimens and a resident taxonomist, as well as nursery for plant stock covering 70 acres. The centre has both a public and a schools' educational program.

Conservation Demonstration: Reforestation, of woodlot management, experimentation and research. A demonstration sawmill is on the site.

Historic Site: There have been some archaeological finds in relation to the Indian settlement of this area and the old lumbering industry.

Other: It is the general expectation that teachers prepare classes fully and materials are available as resources for teachers. Teachers should handle the field work and the

staff are available to assist and guide. Pamphlets teachers can use are:

- (1) Lakes in the Forest Landscape;
- (2) Silviculture Research;
- (3) Flowers of the Petawawa Forest;
- (4) Canoe Trail Aquatour;
- (5) The Road Tour and Visitor Centre pamphlets include a tape cassette.

To the west of the experimental station is Algonquin Park. To the south and east is the Department of National Defence Base. To the north is the Atomic Energy Commission Plant at Chalk River.

REFERENCES:

- 1) *The Mississippi Valley Conservation Authority*, Box 419 Carleton Place, Ontario K7C 3P5. Telephone (613) 257-4272.
- 2) *Pembroke District, Ministry of Natural Resources*, Riverside Drive, Box 220, Pembroke, Ontario K8A 6X4. Telephone (613) 732-3661.
- 3) *Algonquin Park District* (Whitney District, Ministry of Natural Resources), Whitney, Ontario K0J 2M0. Telephone (705) 637-2780.
- 4) Mr. D. Stewart *Petawawa Forest Experimental Station*, Chalk River, Ontario. Telephone (613) 589-2880.

The United Counties of Leeds and Grenville

I Conservation Authority Lands

(i) CONSERVATION AREAS (Developed)

Buell's Creek Conservation Area (Cataraqui Region Conservation Authority)

Location: From intersection of Highways 401 and 29 (Interchange 112) at Brockville, travel northwest for three miles, then take Airport Road east for 1.5 miles to the park.

Features: 1,313 acres of level to rolling limestone topography. The area contains a 650-acre reservoir formed by the construction of a dam at the headwaters of Buell's Creek. The vegetation cover consists of pasture land, ponds with cattails, mixed hardwoods, drowned bush area and 40 to 50 acres of wooded swamp. Glacial, fluvial sands.

Nature Trails: Three miles of trail around a reservoir.

Nature Interpretation Program: Wildlife and waterfowl - Canada goose pen. Pond studies and succession studies. Wildlife includes white-tailed deer, beaver, muskrat, porcupine and many smaller mammals. There are several beaver lodges in the area. Pond ducks such as mallard and pintail may nest here. Turtles include the snapping and painted species and various types of frogs and snakes. The plant cover includes several types of swamp forests with tamarack dominant in some places, white cedar in others. A deciduous forest of red maple, ash and elm covers a considerable area although most of the elm is now dead or dying. Among trees on drier areas are white pine, hemlock, balsam fir, sugar maple, basswood, ironwood and butternut. A large part of the wet ground is covered by willows, red osier, dogwood and similar shrubs. In other parts, cattails, bullrushes and masses of marsh grasses dominate the scene. Near the entrance road, many grey birch grow, a small shrub-like tree with bark similar to the common white birch, but differing in leaf and other features. Its range extends into Ontario, but only as far west as Brockville. Geological studies - the soil is generally shallow with flat layers of limestone, the underlying rock, that can be seen in many places around the south side of the pond. The pond was formed in the sea which invaded Eastern Ontario at the last Ice Age, some 10,000 years ago.

Conservation Demonstration: The Broome Runciman Dam on the Creek in the southeast corner of the area was erected for water retention and low flow augmentation for the City of Brockville.

Historic Site: The reservoir was used as a mill-pond in pioneer times. It was known locally as "Back Pond". Later it was drained to extract peat, a railroad was built, and some road bed graded before the project was abandoned. Buell's Creek was named after one of the earliest settlers.

Other: A leaflet and map are available on this area.

Foley Mountain (Rideau Valley Conservation Authority)

Location: 0.25 mile north of Westport on County Road 4, but follow the sign.

Features: 597 acres of rolling topography on the edge of the Canadian Shield with a 200-foot bluff which faces south. The vegetation cover consists of a maple-dominated hardwood climax forest cover, a very mature white pine softwood forest and brush areas composed of sumach, juniper, hawthorn and ironwood. Areas of marsh in beaver ponds, and shoreline access to the upper Rideau Lake. Limestone bedrock in the south.

Nature Trails: There are five trails for hiking covering a distance of eight miles:

- 1) On the Beaver Pond Trail the black rat snake may be found (the largest in Canada - up to eight feet long). A guide is available for this trail.
- 2) The Wild Flower Trail is a marked trail.

There are three other trails which exist for movement around the property. There are also lookout sites and the Rideau Trail passes through the area.

Nature Interpretation Program: This is an excellent wildlife area with a wide variety of habitats available. There is an interpretive centre with a resident superintendent, Barry McQuay, who can be contacted at (613) 273-5646. The educational program includes snow, pond, and woodlot studies, tree identification and there are two orienteering courses with available equipment. The area also contains a deer yard, beaver ponds and wildlife species such as Richardson's owl, turkey vultures, and black rat snakes (a protected species) which grow up to eight feet long but are harmless.

Conservation Demonstration: Planting of white pine, white cedar and some red maple, Carolina poplar and other hardwoods. Wildlife management - planting of shrubs and bushes.

Historic Site: In nearby Westport there was once a stop-over for the steamer route from Kingston to Ottawa. Further information can be obtained from the Westport Historical Society or from Mr. Ralph Davies in Smith's Falls, telephone number (613) 283-7624 or 283-7477.

Other: A brochure is available on this area. Further general information can also be obtained from Mr. Pat McManus in Portland. Telephone (613) 272-2891.

Lyn Valley Conservation Area (Cataraqui Region Conservation Authority)

Location: From intersection of Highways 401 and 29 at Brockville, travel northwest to County Road 6A and go west to the Village of Lyn.

Features: 18 acres containing an abandoned sand pit, a spring-fed pond (supervised swimming) and two small swamps. There is road access and the Lyn Creek is found to the west of the area.

Portland Bay (Rideau Valley Conservation Authority)

Location: On the eastern fringe of Portland on Highway 15. On Big Rideau Lake 0.5 mile from a Ministry of Natural Resources boat launch.

Features: Six acres of flat and grassed land with a filled-in marsh and cattails. Roadside picnic area.

(ii) CONSERVATION AREAS (Undeveloped)

Charleston Lake Access Point (Cataraqi Region Conservation Authority)

Location: From the Town of Athens on Highway 42, turn west along Highway 5B for 5.5 miles past the verge of Charleston to Charleston Lake and the park.

Features: 4.3 acres on Charleston Lake with a 40-foot beach. Picnic tables and washrooms.

The La Rue Mill (Cataraqi Region Conservation Authority)

Location: On Highway 2 between Waterton and Mitchellville.

Features: 135 acres of scenic area containing a gorge and a mature stand of white pine. The La Rue Creek is in the north-east corner.

Marble Rock Conservation Area (Cataraqi Region Conservation Authority)

Location: Take Highway 32 north of Gananoque to Marble Rock Road. Go east for three miles.

Features: A 590-acre wilderness area on Canadian Shield topography with rock dome outcrops up to 400 feet high. The vegetation cover consists of former farmers' fields, forests of pine and maple and swamps. There is frontage on the Gananoque River.

Nature Trails: Trails are marked, but not maintained. A canoe stop-over exists.

Nature Interpretation Program: None is available. This is, however, a good wildlife area and suited to swamp and pond studies, geological, succession and river studies.

The Mill Pond Conservation Area (Rideau Valley Conservation Authority)

Location: Follow Highway 15 southwest from Smith's Falls for 11 miles and then go west down Houghton Bay Road for three miles. This leads one to a focal point in the southwest corner of the property where the maple sugar bush is located.

Features: 1,264 acres of Canadian Shield topography with many outcrops and scarps showing indications of glacial movement. Shoreline on Mill Pond, but no beach facilities. The vegetation cover consists of a maple sugarbush, mixed hardwoods such as maple and basswoods, and an excellent conifer stand of cedars, hemlock and spruce (deer). There is swamp around the lake and in some of the swales between the transverse ridges.

Nature Trails: A 2.5-mile trail extends out to the pond and back to the parking lot. It is marked and there is some

labelling. This trail is near the maple sugarbush. Another 2.5-mile trail is being cut to the north end of the property.

Nature Interpretation Program: A wilderness "experience" is available in the undeveloped area and there is a three-week sugarbush operation. This is a good wildlife area containing a deer yard and interesting and unique flora such as orchids and marsh species, etc. (For further information, contact John Wickware, a member of the Ottawa Naturalists' Club.) There are launching sites for canoes to enable fishing.

Conservation Demonstration: Reforestation with red pine, white spruce, and other species. Wildlife management is being encouraged in the open areas with planting of wildlife shrubs and numerous wildlife management techniques.

Historic Site: Abandoned farmland.

Other: A pamphlet is available on the maple syrup demonstration.

Mosquito Lake Campsite (Cataraqi Region Conservation Authority)

Location: East of Bedford Mills on the Perth Road.

Features: Five acres with picnic tables and washrooms.

Arthur Lake Conservation Area (Rideau Valley Conservation Authority)

Location: Take Highway 15 south from Smith's Falls to Hackman Bay Road. Turn northwest and then take the next right to the area.

Features: 160 areas of rugged Canadian Shield topography on the shoreline of Otter Lake.

Boat Ramps

The Lyndhurst Access Point (Cataraqi Region Conservation Authority)

Location: In the Village of Lyndhurst on 4th Street.

Features: Half an acre.

Outlet Boat Ramp (Cataraqi Region Conservation Authority)

Location: At the outlet to Charleston Lake (west end). Take County Road 3 six miles north of Lansdowne.

Features: 0.75 acre.

(iii) Conservation Authority Agreement Forests

Cataraqi Region Conservation Authority Agreement Forest

There are 762 acres of forestry management agreement lands in the Counties of Leeds and Grenville managed by the Brockville District Office of the Ministry of Natural Resources. 250 acres lie in South Burgess Township. A further 512 acres lie in Leeds, Lansdowne, front of Lansdowne, front of Leeds and Lansdowne Townships, the latter area being known as the Eden Grove Forest.

From the spring of 1971 to 1975, over 120,000 spruce and

pine trees have been planted by the Ministry of Natural Resources on the Cataraqui Region Forest. The protection of these trees has included the use of malathion and chlor-dane against sawflies and grubs. Interplanting larch with white pine has been used as a method of protecting the pine against the white pine weevil. Reforestation species include red pine, white pine, jack pine, white spruce, white cedar, larch and some hybrid poplars. Secondary forest uses include wildlife management, recreation, interpretation and education.

Edwardsburgh Township Forest (May also be referred to as Charlottesburg or Williamsburg Township Forest) (Cornwall District, Ministry of Natural Resources)

Features: 750 acres. For description, see Prescott and Russell United Counties.

Non-Agreement Forest

The Bard Property (Rideau Valley Conservation Authority)

Location: Concession 1, Lot 22, North Crosby Township - 200 acres.

Features: Authority forest property only. No public access.

(iv) **Water Control Areas**

Bellamy Pond Dam (Rideau Valley Conservation Authority)

Location: On the outlet of Bellamy Pond in Kitley Township. Go south of Smith's Falls on Highway 29, then west on County Road 8 to Bellamy.

Features: Small control dam on outlet from Bellamy Pond.

Marsh Bridge Dam (Cataraqui Region Conservation Authority)

Location: From Brockville, take Highway 29 north to the hamlet of Glen Buell and go west on County Road 6B and then take the first road south to the area.

Features: 17 acres, 10 of which are water.

Nature Trails: A 200-foot walk to the dam.

Conservation Demonstration: The reconstruction of an old dam in 1974.

Temperence Lake Dam (Cataraqui Region Conservation Authority)

Location: Just north of Marsh Bridge Dam.

Features: One acre only accessible on foot.

II County Agreement Forest

The Limerick Forest (Brockville District, Ministry of Natural Resources)

Location: A scattered forest mostly in Grenville County and small areas of Leeds County.

Features: There are three picnic sites of interest in the Limerick Forest:

1) The Limerick Schoolhouse

Location: Situated 15 miles southwest of Kemptville near Highway 16, Miller's Corners and Oxford Station. Seven miles north of Roebuck.

Features: Though these schools closed years ago, educational opportunities still abound. A nature trail leads back from the site through corridors of cedar, spruce glades and birch stands. Descriptions have been posted along the trail and there is a beaver dam and evidence of porcupine and deer. Other residents include raccoons, muskrats, fox, snowshoe rabbits, starlings, Baltimore orioles, blue-jays, finches and Hungarian partridge. An excellent pamphlet on the area is available from the Brockville District Office.

2) The Locks Road

Location: On the Chaffey's Locks leading off Highway 15, 25 miles southwest of Smith's Falls.

Features: Near the historic Rideau waterway. A pamphlet is available from the Brockville District Office.

3) Shanty Knoll

Location: Situated seven miles north of Roebuck on the township road. It is also 18 miles southwest of Kemptville via Highway 16, Miller's Corners and Oxford Station.

Features: A pioneer farming area settled by immigrant Irish and now reforested. The original Shanty Knoll was a collection of buildings a mile north of the clearing. The old foundation of a Methodist Church can still be seen under the pines at that crossroad. A pamphlet is available on this area. The Limerick Forest covers semi-marginal agricultural land and some sandy areas - mostly in the northern part of Augusta Township. Here sand dunes of up to 50 feet in height may be found now stabilized by vegetation. There are large areas of swamp in the north near Merrickville and in the south near Roebuck. Land purchase began in 1940 and the first plantings took place from 1940 to 1942, and then from 1950 to 1953. This was continued with more purchases and further plantings in the '60's. There is a separate Ministry headquarters at Limerick Forest (telephone (613) 258-3151) 12 miles southwest of Kemptville on the Oxford Station Road. The principal species planted here were red pine, jack pine and white spruce. However, there is a varied and extensive natural forest cover. Forest improvement and protection continues, especially in the shallow soil around Merrickville where a high percentage of the blocks can be in protection forest (over limestone bedrock).

The old schoolhouse is used as the centre for an interpretive program, and a general program does exist, but the principal emphasis is on forest management. An extensive trail system has also been laid out, i.e., 50 miles of hiking and 80 miles of snowmobiling trail. The interpretive program deals primarily with four areas:

a) timber cruising

- b) timber height
- c) a compass course
- d) an identification trail for trees.

There is also the possibility of studying the beaver dam and house, the land forms of the area (swamp, sand areas and esker) as well as the general nature trail to study natural forest processes.

Other: The Brockville District Office should be contacted as to the exact state of development of the kits, slides, brochures, etc. involved in the interpretive program.

III Crown Lands

The crown lands of Leeds and Grenville Counties are managed by the Brockville District. They consist of 17,500 acres in Leeds County, mostly on Canadian Shield topography, and 6,000 acres in Grenville County, mostly on the limestone plain. The main cover and use of the forest is for timber production. Its secondary use is for outdoor recreation (Limerick Forest). There are another 30 miles of trail in the Blue Mountain Leeder Creek Area to the east of Charleston Lake Provincial Park.

One site is being developed for outdoor educational purposes (see Leeds and Grenville County Board of Education). This is Lot 3, Concession 1, Elizabethtown Township, which continues over into Grenville County in Augusta Township. There are five boat-launching sites - Charleston Lake, Killinbeck Lake, Rideau Lake, Otter Lake and Newboro Lake.

Several canoe routes pass through Leeds and Grenville crown lands and details on these may be obtained from the Cataraqui Region Conservation Authority. The Rideau Trail also passes through Leeds and Grenville Counties. Details of this trail may be obtained from the following addresses: Box 15, Kingston, Ontario K7L 4V6 or 212 Ryan Street, Smith's Falls, Ontario K7A 3X7 or Box 2111, Station "D", Ottawa, Ontario K1P 5W3. The Rideau Trail extends for approximately 200 miles from Ottawa to Kingston and further details can also be obtained by contacting Professor Cook, Biology Department, Queen's University.

IV Forest Stations and Nurseries

The G. Howard Ferguson Forest Station (Brockville District, Ministry of Natural Resources)

Location: Take County Road 44 off Highway 43, on the northern edge of the Town of Kemptville, south of the Rideau River.

Features: A total of 1,382 acres: 248 acres under cultivation; 1,058 acres natural woodland and plantation, and 76 acres non-productive. The topography is flat to

slightly rolling, the soil is stone-free, and the outwash medium is sand underlain with limestone. The natural drainage is poor to fair, hence extensive tile drainage systems are in use. Under Section II, 40% of the area is plantation and 60% is natural with a tendency for hardwood to dominate, e.g., soft maple, elm, poplar and there are some softwoods such as cedar, white spruce and red pine.

Nature Trails: Several trails lead directly from each of the parking and picnic areas across large bridges over low, marshy areas, grassy ridges and needle-carpeted forest roads, through gullies and out to mixed wood brush and cedar swamp. Trails of various lengths pass into the forest to reveal porcupine activity, wolf "tees", deer runway, woodpecker damage, beaver ponds, chipmunk feeding areas and a host of wild flowers, fungi, moss and decaying matter composing the multi-layered forest floor. There are bicycle trails.

Nature Interpretation Program: Tours are available. Slides are shown in the workshop. Trails are marked.

Conservation Demonstration: Forest management. Plantation cycle. The relationship of the forest to other resources such as wildlife, water and soil. The main species that grow are: white, red, jack and scotch pine; red, Norway, white and black spruce. Conifers such as tamarack, European larch and white cedar, and hardwoods such as white ash, Carolina poplar, black locust, basswood, silver, red and sugar maple as well as red oak grow in this forest. The annual shipping target is approximately 10,000,000 trees.

Historic Site: The area was settled in 1815 and cleared as part of the great white pine era of Eastern Ontario. The forest station was established in 1945 and was named The G. Howard Ferguson Forest Station after one of Kemptville's outstanding townsmen, who besides being a personal friend of Sir John A. MacDonald, was also Premier of Ontario, from 1923 to 1930. It is adjacent to the Rideau Canal system built by Lt. Col. John Barry on the fringe of the United Empire Loyalist settlement area.

Other: Pamphlets available on this area include:

- 1) The G. Howard Ferguson Station
- 2) The Kemptville Nursery Forest
- 3) A Description of the Management of The G. Howard Ferguson Forest Station.

For further information, write to: Superintendent, The G. Howard Ferguson Forest Station, R.R. No. 4, Highway 16, Kemptville, Ontario K0G 1J0. Telephone (613) 258-3413, local 214.

V Provincial Fish and Wildlife Management Areas

The Gananoque Provincial Wildlife Area (Brockville District, Ministry of Natural Resources)

Location: Eastbound exit Highway 401 intersection 105, take the side road parallel to 401 on the north side and continue to the area entrance. Westbound leave Highway 401 at Gananoque and take Highway 2 to the Leeds-Frontenac County Line, then turn north to the entrance.

Features: 1,400 acres of wilderness-like forest, swamp and rock outcrops of Canadian Shield topography adjacent to the Gananoque River. Sugar Bush Island lies in the middle of the marsh in the northeast corner of the property south of Mud Creek which flows into the Gananoque River.

Nature Trails: Three miles of access roads and five miles of forest roads are available for hiking, horseback riding, snowshoeing, cross-country skiing and snowmobiling. Canoe access from the Gananoque River.

Nature Interpretation Program: The interpretive centre at the entrance provides a place to meet and an area to study displays about topics such as the relationships between flora and fauna in the area, predators' roles, management techniques and identification of wildlife. Bird watching - more than 100 species of birds make migratory stop-overs or permanent homes in the tract. These include mallards, wood ducks, black ducks, blue-winged and green-wing teal and woodcock, as well as scores of songbirds.

Other: There is no staff at the interpretive centre. Therefore, the Brockville District Office must be contacted.

The Westport Fish Culture Station (Brockville District, Ministry of Natural Resources)

Location: In the Village of Westport between Upper Rideau and Westport Lake in Leeds County, approximately 40 miles west of Brockville on Highway 42.

Features: 20 acres on which game fish such as lake trout, brook trout and large-mouthed bass are held in artificial ponds and reared until they are ready to be released in the lakes and streams of Eastern Ontario. This is an historical Rideau Canal settlement on the edge of the rock outcrops and white pines of the Rideau Lakes Shield country. Water, held back by the 295-foot long dam, flows by gravity through pipes into the five 60-foot rearing ponds below the east end of Westport Lake. From there, it drains into the 39-acre mill-pond and flows into the Upper Rideau Lake past the old mill, built in 1911 as a foundry, but used today as the station headquarters. Here, the fish food is stored and prepared. The focus of activity, however, is the earthen rearing ponds where normally lake and brook trout are raised in winter and large-mouthed bass in the summer.

Other: The property is backed by spy rock, part of the Foley Mountain Conservation Area.

VII Provincial Parks and Park Reserves

Charleston Lake Provincial Park - Including Blue Mountain Park Reserve (Brockville District, Ministry of Natural Resources)

Location: Nine miles north of Lansdowne and eight miles south of Lyndhurst. From Highway 401, take exit 109 north through Lansdowne and north of Outlet on County Road 3, go east for three miles to the park.

Features: 6,500 acres of land area and 6,220 acres of lake (not all owned) with access to 95 miles of shoreline where water reaches a depth of up to 300 feet. The Blue Mountain area is over 600 feet high and there is a plateau-like area to the southwest of the lake, composed of sandstone. Rugged ridges comprise most of the area. These are composed of rocks such as granite, gneiss, granodiorite, pegmatite and quartzite, etc. The area also contains a heronry, a black spruce bog, deer yards, a marsh and wild flower meadows. The vegetation cover consists of hardwoods such as sugar maple (dominant), red and white oak, shag-bark hickory and butternut. There are maple swamps, ferns, weeds, alders, open grassed areas and barren rock areas. White pine is the dominant conifer. One may also find the pitcher plant, the pitch pine tree, walking fern, orchids and pig-nut hickory. Small mammals are abundant.

Nature Trails: There are five trails in the park:

- 1) *The Pioneer Hiking Trail*
A one and one-half mile trail with 14 stops. A guide book is available.
- 2) *The Quiddity Trail*
A 1.5 mile loop trail with labelling. A guide is available on this trail.
- 3) *The West Side Hiking Trails*
These trails must be accompanied by a guide. An 800-foot boardwalk takes one through a swamp leading to a foot-bridge ahead of Slim's Bay and on to the trail system and the Quiddity Trail.
- 4) *Canoe Expeditions to Blue Mountain*
- 5) *The Woodland Trail*
A self-conducting trail with guiding booklet.

Nature Interpretation Program: This park is part of a compressed transition zone, i.e., the tension zone where one can see a wide variety of flora and fauna usually found ranging much farther north and south elsewhere in Ontario. There are many varieties of mammals, reptiles, amphibians and fish. The wide variety of flora includes trilliums, the Canada mayflower, Solomon's seal, white and red baneberry and the long bracted orchids. Lake conditions are generally oligotrophic. The interpretive program runs from the end of June to mid-September and the park naturalists are available.

Conservation Demonstration: The eastern and western parts of the park are being logged and cleared and white birch and aspens are beginning to grow.

Historic Site: A scenic and historic drive has been mapped out over a 57.3-mile route, lasting about half a day. It takes the traveller through landscapes and villages historically related to Charleston Lake which plays an important role in the lives of the people living there. A booklet is available with details of this tour. The park was settled in prehistoric times by Indians and there is evidence of this at Jackson Point and Gordon Rock shelters and the Slim's Bay pictographs within the park. The area was settled by Europeans in the 1860's, and was subsequently farmed. There is a quartz mine in the park from this period. During the 19th century, this was an important recreation area.

Other: The park is now open to the public. The park is continually acquiring land, especially in the Blue Mountain area which will expand to 7,000 acres. It is located on the Frontenac access and is also on the edge of the glacial Lake Iroquois and the marine glacial lake known as the Champlain Sea. Evidence of these may be observed in the varves found in the park. A master plan is available. Further details may be obtained from the Park Superintendent, R.R. No. 4, Lansdowne, Ontario K0E 1L0. A general pamphlet on the park may be obtained from the Brockville Ministry Office.

Special Note: Due to the great value and significance of Charleston Lake Provincial Park for educational purposes, a special bibliography has been attached.

VIII Parkway Commission Lands

Brown's Bay Park (St. Lawrence Parks Commission)

Location: Both sides of the Thousand Islands Parkway, 11 miles west of Brockville.

Features: 195 acres consisting of two parks:

- A park on the river for daytime use. There are rock outcrops and good brush cover for wildlife.
- A camping area on the north side of the parkway. Adjacent to this area is a marsh used as a migratory stop-over for birds.

Nature Interpretation Program: Geological studies. St. Lawrence Seaway and wildlife observation.

Other: Winter activities.

Grenville Park (St. Lawrence Parks Commission)

Location: Three miles east of Prescott on Highway 2.

Features: A 115-acre camping park of open land sloping down to the river. The area has a boat ramp. It is located near the International Bridge.

Ivy League Park (St. Lawrence Parks Commission)

Location: On the Thousand Island Parkway beside the bridge to the U.S.A.

Features: 50 acres of Canadian Shield topography on the Frontenac access with rock outcrops. A hilly area with brush cover. Scenic view.

Nature Interpretation Program: St. Lawrence Seaway observation and geological studies.

IX Federal Lands

Fort Wellington National Historic Park (Parks Canada)

Location: In the Town of Prescott. Fort Wellington guarded the border along the St. Lawrence which was the vital transportation route to Upper Canada. The first Fort Wellington was built during the War of 1812. The present fort, built in 1838 and 1839, was occupied until 1870. Although not very large, Fort Wellington is an excellent example of the French style of military engineering which became popular in the 18th century. At that time, fortifications of stone were no longer able to withstand the heavy artillery which armies were carrying, so military engineers substituted earth ones, which could easily absorb the impact of cannon balls.

Merrickville Bird Sanctuary (Environment Canada)

Location: Proceed west of Merrickville along the Rideau River for 2.5 miles. The bird sanctuary lies in the land between the road and the river.

Features: Managed by the Canadian Wildlife Service.

The Rideau Canal (Parks Canada)

Location: A 123-mile waterway from the Ottawa River to Lake Ontario at Kingston.

Features: The Rideau Canal uses the Rideau River from Ottawa to its headwaters in Upper Rideau Lake, approximately 263 feet above the level of the Ottawa River. The canal cut joining Upper Rideau Lake to Newboro Lake is the summit at 408 feet above the Ottawa River. It then descends through a series of lakes controlled by dams and down the Cataraqui River to Kingston, 163 feet below summit level. There are 47 locks, divided by 23 lock stations; the locks are 33 feet wide and 134 feet long with 5.5 feet or more of water on the lock sills. A total of 60 bridges are situated along the system. A branch line canal, the Tay Canal, extends from Rideau Lake to the Town of Perth, a distance of 6.8 miles. The drainage area of the Rideau system is approximately 1,800 square miles.

Interpretive Program: A summer interpretive program is offered from mid-May to mid-October. Winter programs are available to school groups by contacting the Rideau Canal Office. The Canal would prefer written request at least two weeks in advance. Further written material and information is available by writing: The Superintendent, Rideau Canal

Southern Division Office, 12 Maple Avenue North, Smith's Falls, Ontario K7A 1Z5. *Attention: Interpretation.* Telephone (613) 992-1713. Both historical and natural history programs can be arranged concerning the Rideau corridor. Contact the Ontario Ministry of Industry and Tourism for information regarding boat tours.

St. Lawrence Islands National Park (Parks Canada)

Location: A river-locked park. Mallorytown Landing on the Thousand Islands Parkway is the only part of the park accessible by land.

Features: 17 main islands stretch from Kingston to Brockville. The St. Lawrence River is crossed by the Frontenac Axis formation which connects the Canadian Shield and the Adirondacks in New York State. The granite axis outcrops from approximately Brockville to Gananoque. Only Milton and Cedar Island belong to the St. Lawrence lower physiographic region. This is an ecological "tension zone" corresponding to the transition of elements of Carolinian forest through the deciduous forest of the Great Lakes Forest to elements of boreal forest. It is ecologically significant as a post-glacial migration route for plants and animals.

Interpretive Program: A varied and extensive program is possible including class visits where the interpreter visits the class or the class teacher's own program. The visitors' centre is at Mallorytown Landing where a full interpretive program is available for visitors. Ecological communities possible for study are: aquatic, marsh, rocky lichen and moss, grass, shrub and forest. Program kits are in preparation.

To obtain information, write Box 469, R.R. No. 3, Mallorytown, Ontario K0E 1R0, or telephone (613) 923-5241. Programs include National Parks, local and regional history, geology, ecology, and plant and animal populations.

Each island is a separate micro-climate, e.g., only 13 tree species are common to all islands. The pitch pine from the area is of particular interest. It is a Carolinian (Appalachian) tree which likes the southwest promontories; it does not thrive where there is competition with other trees on deep soil. The tree gets its name from its resinous sap.

Historic Site: *Brown's Bay Wreck*, thought to be the "H.M.S. Radcliffe", a British gunboat from 1812-1814, can be seen at Mallorytown Landing. There are Indian remains at Grenadier Island and rock paintings (petroglyphs) near Brockville on the St. Lawrence River.

The Cathcart Redoubt, located on Cedar Island, was built in 1846 to defend Kingston. A leaflet is available on this for further details.

Other: Further information can be obtained from a wide variety of pamphlets and leaflets which include an interpretive program guide, a general park guide, and an excellent spiral bound booklet entitled "The Natural and

Human History of the Thousand Islands", by the interpretive staff of St. Lawrence Islands National Park. This covers geomorphology, relief, drainage, soils, climate, flora, fauna, ecology, man-land interaction and a list of references.

REFERENCES:

- 1) *The Cataraqui Region Conservation Authority*, R.R. No. 1, Glenburnie, Ontario K0H 1S0. Telephone (613) 546-9965.
- 2) *The Rideau Valley Conservation Authority*, Box 599, Mill Street, Manotick, Ontario K0A 2N0. Telephone (613) 692-3571.
- 3) *The South Nation River Conservation Authority*, Berwick, Ontario K0C 1G0. Telephone (613) 984-2400.
- 4) *Brockville District Office, Ministry of Natural Resources*, 101 Water Street West, Brockville, Ontario K6V 5Y8. Telephone (613) 342-8524.
- 5) *The G. Howard Ferguson Forest Station*, R.R. No. 4, Kemptville, Ontario K0G 1J0. Telephone (613) 258-3413, extension 213.
- 6) *The St. Lawrence Parks Commission*, Morrisburg, Ontario K0C 1X0
- 7) *The Canada Wildlife Service, Environment Canada*, Ottawa, Ontario K0A 0E7. Attention: Mr. Roy Webster, Interpretation Division. Telephone (613) 997-4231.
- 8) *National Historic Parks, Department of Indian and Northern Affairs*, Parks Canada, Ottawa, Ontario.
- 9) *The St. Lawrence Islands National Park*, R.R. No. 3, Mallorytown, Ontario K0E 1R0. Telephone (613) 923-5241.
- 10) *The Rideau Canal Authority, Southern Division Office*, 12 Maple Avenue North, Smith's Falls, Ontario K7A 1Z5. Telephone (613) 283-5170.

Bibliography

Beschel, R.E. "Comments on the Vegetation of the Kingston Region". *Blue Bill* (Quarterly Bulletin of the Kingston Field Naturalists) XII (April 1965), 32-36.

Bond, I.J., and Griggs, R.G. **Revision of the March Formation (Tremodocian) in Southeastern Ontario**, 1973. Canada Department of The Environment. **Temperature and Precipitation 1941-1970**.

Canada Department of Indian Affairs and Northern Development, Parks Canada. National and Historic Sites Branch. **Canadian Outdoor Recreation Study**. Tech. note 22, 1973.

Chant, Edna B. **Beautiful Charleston**. Belleville: Mika, 1975.

Chapman, L.J., and Putnam, O.F. **The Physiography of Southern Ontario**, 1966, second edition.

Cobus, M., and Weiler, J. **Interim Interpretive Plan for Charleston Lake**. Ontario Ministry of Natural Resources, 1972.

Contact Points for Schools

Conservation Authorities in Eastern Region

Cataraqui Region C.A.

R.R. 1
Glenburnie K0H 1S0
Res. Manager: R.V. Brittain
(613) 546-9965

Crowe Valley C.A.

Box 279, Havelock K0L 1Z0
Res. Manager: D. Murray
(705) 778-3024

Lower Trent Region C.A.

Box 180
Frankford K0K 2C0
Res. Manager: D. Murray
(613) 398-6234

Mississippi Valley C.A.

Box 419
Carleton Place K7C 3P5
Res. Manager: R.M. Rogers
(613) 257-4272

Moir River C.A.

308 North Front Street
Belleville K8P 3C4
Res. Manager: J.A. Johnston
(613) 968-3434

Napanee Region C.A.

Box 205, 174 Robinson Street
Napanee K7R 2S4
Liaison Officer: P.W. Gill
(613) 354-3312

Prince Edward Region C.A.

Box 2032,
Picton K0K 2T0
Res. Manager: L. Merritt
(613) 476-2249

Raisin Region C.A.

Box 10
Martintown K0C 1S0
Res. Manager: A.W. Chalk
(613) 528-4584

Rideau Valley C.A.

Box 599, Mill St.,
Manotick K0A 2N0
Res. Manager: O. Stirajs
(613) 692-3571

Earle, E.P. **Leeds the Lovely**, second edition. Prescott: St. Lawrence Printing Co., 1974.

Froom, Barbara. **Ontario Snakes**. Conservation Information Section, Operations Branch, Department of Lands and Forests, 1967.

Gillespie, J.E., Millar, M.H., and Wicklund, Q.E. **The Soils of Leeds Country**. Canada Department of Agriculture and the Ontario Department of Agriculture and Food, Ontario Soil Survey, Report number 41, 1968.

Gordon, R.L. **Charleston Lake Rock Shelter. Report on excavations by personnel from Trent University for the Department of Lands and Forests**, 1967.

Hewitt, D.F. **Geological Notes for Maps 2053 and 2054, Madoc and Gananoque Area. Geological Circular number 12**. Ontario Department of Mines, 1960-1.

Historical Atlas of Leeds and Grenville. Kingston: Putnam and Walling, 1861-2.

Leavitt, T.H. **History of Leeds and Grenville**, 1879.

Millar, M.S. **Natural Resources Appraisal for Land Use Planning**. Cornell University, 1972.

Ontario Ministry of Natural Resources. **Ontario Provincial Parks Statistical Reports, 1972, 1973, 1974**.

Ontario Ministry of Natural Resources. **Tourism and Outdoor Recreation Planning Study, 1975**.

Ontario Ministry of Natural Resources. **Sensitive and Special Areas Report**. Kemptville: 1972.

Swayze, J.K. **Interpreting the Historical and Prehistorical Resources of Charleston Lake Provincial Park**. Ontario Ministry of Culture and Recreation for the Ontario Ministry of Natural Resources, 1975.

——— **Management of the Historical and Prehistorical Resources of Charleston Lake Provincial Park**. Ontario Ministry of Culture and Recreation for the Ontario Ministry of Natural Resources, 1975.

——— and Bridges, Paul. **The Archaeological Survey of Charleston Lake Provincial Park**. Ontario Ministry of Natural Resources, 1973.

Van der Kloet, S.P. "The biological status of pitch pine, *Pinus rigida* Millar, in Ontario and adjacent New York". Canadian Field Naturalist LXXXVII (1973), 249-53.

——— "Occurrence of *Rhus copallina* in Leeds County, Ontario". Canadian Field Naturalist LXXXII (1968), 291-3.

Wynne-Edwards, H.R. **Geology of the Tichborne Area (East Half)**. G.S.C. Paper 64-65, 1965.

Young, C.J. "Notes on the Natural History of the Blue Mountain, County of Leeds, Ontario". The Ottawa Naturalist V (1891), 45-51).

South Nation River C.A.

Berwick, Ont. K0C 1G0
Res. Manager: K.G. Musclow
(613) 984-2400

Ministry of Natural Resources

Eastern Regional Office
Kemptville Nursery, Government Building
South Boundary Road
Kemptville, Ontario K0G 1J0
Phone (613) 258-3413

Regional Director
Deputy Regional Director
Deputy Regional Director
Regional Lands Co-ord.
Regional Biologist
Regional Forester
Regional Parks Co-ord.
Finance & Administrative Officer
Regional Services Co-ord.
Regional Conservation Authority
Program Co-ord.
Regional Geologist
Regional Safety Supervisor
Regional Personnel Officer

T.W. Hueston
D.E. Gage
S.R. Hamilton
B. Masten
G. Whitney
P. Anslow
J. Bell
R. Taylor
J. Lloyd

D.J. Murray
Dr. M. Klugman
A. Etmanskie
M. Hart

Brockville District Office

101 Water St. West
Brockville K6V 5Y8
District Manager: R.H. Trotter
(613) 342-8524

Cornwall District Office

40, 5th Street West, Box 1749
Cornwall K6H 5V9
District Manager: J.R. Morin
(613) 933-1774

Lanark District Office

Box 239
Lanark K0G 1K0
District Manager: J.R. Bailey
(613) 259-2108

Napanee District Office

P.O. Box 3040
Napanee K7R 3M8
District Manager: R.G. Bailey
(613) 354-2173

Ottawa District Office

Ramsayville, Ont. K0A 2Y0
District Manager: W.D. Adlam
(613) 822-2525

Tweed District Office

265 Metcalfe Street
Tweed K0K 3J0
District Manager: W. Vonk
(613) 478-2330

**Other Conservation
Authorities Involved**

Central Lake Ontario C.A.

1650 Dundas Street East
Whitby L1N 2K8
General Manager: W.M. Campbell
(416) 579-0411

Ganaraska Region C.A.

Box 328, 56 Queen Street
Port Hope L1A 3W4
Res. Manager: J.A. Rowat
(416) 885-6067

Otonabee Region C.A.

727 Lansdowne Street West
Peterborough K9J 1Z2
General Manager: H.G. Hooke
(705) 745-5791

Other District Offices Involved

Algonquin Park District Office

Whitney, Ontario K0J 2M0
District Manager: J. Simpson
(705) 637-2780

Bancroft District Office

Box 500, Hwy. 28
Bancroft K0L 1C0
District Manager: O. Goodman
(613) 332-3940

Lindsay District Office

Ontario Government Building
322 Kent. St. West,
Lindsay K9V 2Z9
District Manager: C.R. Gray
(705) 324-6121

Minden District Office

Minden, Ontario K0M 2K0
District Manager: D.D. White
(705) 286-1521

Pembroke District Office

Riverside Drive, Box 220
Pembroke K8A 6X4
District Manager: L. Bronson
(613) 732-3661

Other Agencies

St. Lawrence Parks Commission

P.O. Box. 740, Morrisburg, Ontario
Phone (613) 542-8094 or 542-7388
General Manager - 542-2961
Superintendent of Historic Sites - 543-2911
Superintendent of Marketing &
Communication Services - 543-2951

Petawawa Forest Experimental Station

Chalk River, Ontario
Mr. D. Stewart
(613) 589-2880

Codrington Fish Hatchery

Ministry of Natural Resources
Codrington, Ontario
Manager
(613) 475-2521

Central Experimental Farm

Room 133, Sir John Carling Building
Carling Avenue,
Ottawa K1A 0C7
Mr. Marlyn O'Connor
(613) 994-5533

Central Research Forest

R.R. 9, P.O. Box 190
Ottawa K1G 3N5
Mr. John Dunfield
(613) 824-5400 or 824-2884

G. Howard Ferguson Forest Station

R.R. 4,
Kemptville K0G 1J0
(613) 258-3413 Ext. 213

Orono Forest Station

Orono, Ontario
(416) 983-9147

Federal Government Offices

Canada Wildlife Service

Environment Canada
Ottawa K0A 0E7
Mr. Roy Webster, Interpretation Division
(613) 997-4231

National Capital Commission

48 Rideau Street
Ottawa K1N 8K5
Chief, Interpretation: Ms. Aileen Merriam
(613) 992-3323

National Historic Parks

Department of Indian & Northern Affairs
Parks Canada, Ottawa

Parks Canada

Director, Ontario Region
P.O. Box 1359
Cornwall, Ont. K6H 5V4

Parks Canada

Ministry of Indian & Northern Affairs
Ottawa, Ontario

Rideau Canal Southern Division Office

12 Maple Avenue North
Smith's Falls, Ont. K7A 1Z5
(613) 283-5170

St. Lawrence Island's National Park

R.R. 3
Mallorytown K0E 1R0
Superintendent: Mr. F. Trembley
(613) 923-5241

Appendix

Although the need was identified during discussions with a number of educators, it has not been feasible to include maps to accompany the text. The following map series are suggested as supplements to the inventories contained in this document:

1. The Ministry of Transportation and Communications
County Road Map Series
-scale 4 miles to 1 inch; 1 mile to 1 inch
indicates lots, concessions, townships, major urban centres, and arterial roads
-Sources
 - (a) Map Unit, Public Service Centre
Ministry of Natural Resources
Room 6404, Whitney Block
Queen's Park
Toronto, Ontario M7A 1W3
telephone (416) 965-6511
cost - .93 per map plus tax
- mail order service
 - (b) Map Unit
Ministry of Transportation and Communications
1201 Wilson Avenue
Downsview, Ontario M3M 1J8
telephone (416) 248-3476
cost - .93 per map plus tax
- mail order service (make cheques payable to the Treasurer of Ontario)
 - (c) Ontario Government Bookstore
880 Bay Street
Toronto, Ontario
telephone (416) 965-2054.
cost - .93 per map plus tax (as of April 1976)
- no mail order service
2. The National Topographic Map Series
-scale 1:50,000
-emphasis upon topographic features but does not indicate lots and concessions
-Sources
 - (a) Canada Map Office
615 Booth Street
Ottawa, Ontario
 - (b) Map Unit, Public Service Centre
Ministry of Natural Resources
Room 604, Whitney Block
Queen's Park
Toronto, Ontario M7A 1W3
telephone (416) 965-6511
cost - \$1.50 per sheet plus tax
- no mail order service

Bibliography

The following references list resources of materials relevant to education studies in the outdoors: available from various federal, provincial government and private bodies in Ontario and in the United States:

I Province of Ontario

A. The Ministry of Agriculture and Food, 1200 Bay Street, Information Branch 10th Floor, Toronto, Ontario M7A 1A5

Canada Land Inventory Maps and Report (colour) \$1.00
(black and white) .50

- Maintenance of the Drainage System (booklet, Publication No. 290).
Farm Drainage Assistance. (booklet, Publication No. 4).
Farm Ponds. (booklet, Publication No. 515).
Irrigation Practices for Ontario. (booklet, Publication No. 176).
Ontario Maple Syrup
Nut Culture in Ontario. (booklet, Publication No. 494).
Ontario Soils \$1.00
Operation Clean-up. (Information Leaflet No. 5).
Origin, Classification and Use of Ontario Soils .50
Poison Ivy. (pamphlet, Publication No. 243).
Pruning - Ornamental Trees, Shrubs & Vines. (booklet, Publication No. 483).
Soil Survey Maps & Reports of Ontario \$1.00

B. The Ministry of Culture and Recreation, Heritage Administration Branch, 77 Bloor Street West, 7th Floor, Toronto, Ontario M7A 2R9

Historic Sites, Museums, Galleries and Plaques - (booklet).

C. The Ministry of the Environment, 135 St. Clair Avenue West, Toronto, Ontario.

- Analyzing our Environment \$1.00
Drinking Water Objectives
Envirofacts and Fun
Environmental Education Materials
Introduction to Water Pollution Control
Ontario's Environment Today
Publications Catalogue
Simple Composting of Household Wastes
Water Pollution: What Can I Do?
Wells and Water

Who Cares?		Plantation Management (booklet).	.50
Who Cares about the Air?		Private Land Forestry Service (pamphlet).	
Who cares about the Land?		Rainbow Trout in the Great Lakes	\$1.00
Who cares about Noise?		Renewing Nature's Wealth	\$9.50
Who cares about Pesticides?		"Resource Management Series"	
Who Cares about the Water?		A series of 10 booklets containing caption photographs. Each illustrates a phase of forestry or a related subject. Subject matter is presented as a supplement to information from school libraries or other sources. Covers and photographs may be removed and rearranged to illustrate themes being developed as a school assignment. This material will be of prime interest to senior elementary school students. Booklet titles are: Forest Tree Seed, Forest Nurseries, Forest Regeneration, Forest Protection, Forest Tending, Forest Harvesting, Forest Products, Forest Recreation, Forest & Wildlife, and Forest Influences.	
Introduction to Air Pollution in Ontario		Rocks & Minerals of Ontario	\$1.00
Guidelines and Criteria for Water Quality Management in Ontario (booklet)..30		Shrubs for Wildlife (leaflet).	
How Air Pollution Affects Vegetation (booklet).		Sugar Bush Management for Maple Syrup Producers (booklet).	
Pesticides and the Environment (booklet).		The Beaver In Ontario (booklet).	.50
D. The Ministry of Natural Resources, Information Branch, Room 5305 Whitney Block, Parliament Buildings, Queen's park, Toronto, Ontario M7A 1W3		The Farm Windbreak (booklet).	.50
Amethyst		The Farm Woodlot (booklet).	.50
Backyard Habitat by G.B. McKeating & W.A. Creighton (booklet).		The Fire Birds — The Ontario Provincial Air Service (leaflet).	
Care & Planting of Forest Trees (pamphlet).		The Forest resources of Ontario (book).	.75
Common Pests of Ornamental Trees & Shrubs		The Forest Trees of Ontario: A Guide to their Identification, with illustrations by J.H. White. Revised by R.C. Hosie	.50
Fishes of Ontario	\$2.50	The Game and Fish Act and The Endangered Species Act, 1971 (booklet)	
Fishing Maps (booklet).		The Moose in Ontario (booklet).	.50
Forest Fire Control in Ontario (booklet).		The Planting of Hardwood Trees & Shrubs (booklet).	
Forest Tree Growers Calendar (pamphlet).		The Ruffed Grouse in Ontario (booklet).	.50
Forest Tree Planting (booklet)	.50	The White-tailed Deer in Ontario (booklet)	.50
Hardwood Trees of Ontario with Bark Characteristics by E.J. Zavitz (booklet)	.50	Trapping Guide (booklet).	
Herbicides for Use in Forest Tree Planting (leaflet)		Who We Are — What We Are Doing For You (pamphlet).	
Hunting		Wildlife Land Management (booklet)	
Ojibwa Fisheries in Northwestern Ontario (booklet).		Woodlot Improvement (booklet).	
Ontario Commercial Fish Industry (3 booklets, covering statistics on Landings from 1956-1960, 1961-1965, 1966-1970).		Rocks & Minerals Information	
Ontario Conservation Authorities (pamphlet).		PLEASE NOTE:	
Ontario's Lake Erie Commercial Fishery. A Social and Economical Profile (booklet).		The Ministry of Natural Resources produces a leaflet called 'Publications' four times a year, for which requests may be addressed to: Information Branch, Ministry of Natural Resources, Room 5305, Whitney Block, Queen's Park, Toronto M7A 1W3.	
Ontario Mineral Review (an annual report).			
Ontario's Public Land			
Ontario Snakes (booklet).	.50		
Ontario Turtles (booklet)	.50		
Ontario Wildlife Extension Program (leaflet)			
Out of the Water. Ontario's Fresh Water Fish Industry. (booklet).			
Planning for Tree Planting (pamphlet)			

For Information about other sources of material on resources and management for education outdoors may be obtained from the following Ontario sources:

The Ontario Government Book Store,
880 Bay Street,
Toronto, Ontario,
N5S 1Z8

Hydro Electric Power Commission of Ontario,
620 University Avenue,
Toronto, Ontario,
M5G 1X5

Ministry of Industry & Tourism,
Communications Division,
9th Floor, Hearst Block, Queen's Park,
Toronto, Ontario,
N7A 1S6

II Federal Government:

A. The following publications are available from the Federal Government bookstore in Ottawa:

Agriculture Canada. For information write to: Sir John
Carling Bldg. 930 Carling Avenue, Ottawa, Ontario K1A 0C7.
Maple Syrup. (pamphlet, Publication No. 1096).

Pheasants. (booklet. Publication No. 1514).
Soil Erosion by Water. (booklet. Publication No. 1083).
Soil Erosion by Wind. (booklet. Publication No. 1266).

B. The Department of Fisheries & Forestry.

Dutch Elm Disease. (booklet, reprinted from bi-monthly
progress report Vol. 20 No. 4, 1964).
Forestry Lessons. (booklet).
Lamprey Control in the Great Lakes. (booklet).
The Sea Lamprey. (Fisheries Fact Sheet).

C. Environment Canada, Ottawa, Ontario K1A 0H3.

A Question of Survival: The Barren Ground Caribou. (A
comic magazine published by the Canadian Wildlife Service,
National Parks Branch).

Canada's 8 Forest Regions. (pamphlet & poster).

Canada's Forests. (An annual publication: poster and
pamphlet of the Canadian Forestry Service. Canadian
Forestry Service fact sheets cover many topics e.g. dutch
elm disease and planting shade trees, etc.)

Ducks at a Distance. (water fowl identification guide).

"Not Man's to Command" (a pamphlet and a film, dealing
with the many problems involved in trying to regulate the
levels of the Great Lakes).

Shore Erosion - Cause & Cure. (pamphlet).

The Canada Centre for Inland Waters. (pamphlet).

The Future Generations - the National Parks of Canada.
(A comic magazine).

The Swamper. (A comic magazine, from the Canadian
Wildlife Service, National parks Branch).

Water Pollution - Everybody's War. (booklet).

What You Always Wanted to Know About Great Lakes'
Levels and Didn't Know Whom to Ask. (booklet).

D. Other Federal Government Sources of information include:

Department of Energy, Mines & Resources,
588 Booth Street,
Ottawa, Ontario,
K1A 0E4

Department of Indian Affairs & North Development,
(National Parks),
400 Laurier Avenue West,
Ottawa, Ontario,
K1A 0H4

Statistics Canada,
Ottawa, Ontario,
K1A 0T6

E. Miscellaneous Sources:

(i) **The Catfish Creek Conservation Authority**, 1229
Talbot Street, St. Thomas, Ontario has available a book: **A
Guide to the Floor of Elgin County, Ontario**. W.G. Stewart
and L.E. James), \$1.50.

(ii) The Canadian Pulp & Paper Association, 2300 Sun Life
Bldg., Montreal, Quebec has a book entitled: **A Walk in the
Forest**, (G. Herbert Lash) copies free.

(iii) **The Bruce Trail Association**. For general information
write to the corresponding address: 33 Hardale Crescent,
Hamilton, Ontario L8T 1X7.

For detailed or specific information on local areas of the
Bruce Trail, refer to the list of Bruce Trail Clubs as follows: -

Peninsula Bruce Trail Club, Mrs. J.P. Johnston Secretary, Tobermory, Ontario N1H 2R0	, Blue Mountains Bruce Trail Club, Box 306, Barrie, Ontario L4M 4Z5
Lion's Head, Bruce Trail Club, Box 86, Lion's head, Ontario N0H 1W0	Dufferin Highland Bruce Trail Club, Box 354, Shelburne, Ontario L0N 1S0

Lower Bruce,
Bruce Trail Club,
Box 491,
Warton, Ontario
N0H 2T0

Sydenham Bruce
Trail Club,
Box 431,
Owen Sound, Ontario
N4K 5P7

Beaver Valley Bruce Trail
Club,
Box 1327,
Meaford, Ontario N0H 1Y0

Niagara Bruce Trail Club,
Box 1,
St. Catharines, Ontario
L2R 6R4

Caledon Hills Bruce
Trail Club,
Box 302,
Waterloo, Ontario,
N2J 4A4

Toronto Bruce Trail Club,
Box 36,
Postal Station "K",
Toronto 12, Ontario
M5M 2M3

Iroquoia Bruce Trail Club,
Box 183,
Hamilton, Ontario
L1O 3A2

- (iv) **Canadian Imperial Bank of Commerce** has produced a pertinent Commercial Letter - January, February, 1970, entitled, "A Matter of Life".
- (v) **The Conservation Council of Ontario**, 11 Adelaide Street West, Suite No. 604, Toronto, Ontario has produced a number of publications including:

Air Pollution (pamphlet)	Pesticides (pamphlet)
Conservation for Young People (pamphlet)	Soil Erosion (pamphlet)
Extinction (pamphlet)	Solid Waste (pamphlet)
Open Space (pamphlet)	Water Pollution (pamphlet)

- (vi) Ducks Unlimited is a private non-profit conservation organization dedicated to the perpetuation and increase of North America's waterfowl resources through restoration, preservation and creation of prime breeding habitat in Canada. One may communicate with this organization at the following address: **Ducks Unlimited**, 1495 Pembina Highway, Winnipeg, Manitoba R3T 2E2.

- (vii) Various books and pamphlets and tour information are available from the Federation of Ontario Naturalists at: **Federation of Ontario Naturalists**, 1262 Don Mills Road, Don Mills, Ontario. Telephone (416) 444-8419.

- (viii) **MacMillan-Bloedel**, 1705 West Georgia, Vancouver, British Columbia V6E 3R9 has available a pertinent colour magazine entitled: "How the Forest Grows".

- (ix) The Long Point Bird Observatory is an independent field station which promotes investigative studies, appreciation and conservation of birds and other aspects of the ecology and natural history of the Long Point region, Write to:

Long Point Bird Observatory, Box 160, Port Rowan, Ontario N0E 1M0 or 116, 3 Valleys Drive, Don Mills, Ontario.

- (x) Various pamphlets and booklets are available from the **Ontario Professional Foresters Association**, Public Relations Committee, 357 Botsford Street, Newmarket, Ontario.

- (xi) **The Royal Bank of Canada** - produces monthly letters, several of which are related to Outdoor Education: i.e. (a) August 1972, Volume 53, No. 8 - "Conservation is a Way to Stay Alive"; **and** (b) "Conserving Canada's Wildlife"; **and** (c) December, 1963 - Volume 44, No. 12 - "Saving Our Watersheds". The following booklets are also available: "Conservation of Wildlife", "Making Money by Saving Soil", "Wood Lots for Profit, Comfort & Protection".

- (xii) The Nature Interpretive Center of the Royal Botanical Gardens, at Burlington, produces excellent information for those using the area and its surroundings.

Royal Botanical Gardens, Headquarters, 680 Plains Road West, Burlington, Ontario. Telephone (416) 527-1158.

- (xiii) A source of information on the local area of Mississauga is:

Save Our Trees & Streams, P.O. Box 452, Mississauga, Ontario L5A 3A2.

- (xiv) Another organization that provides useful informative material is:

The Nature Conservancy of Canada, 2200 Yonge Street, Suite 611, Toronto, Ontario M4S 2E1. Telephone (416) 486-1011.

- (xv) A useful book is **The Timber Trade in the Ottawa Valley**, (T.J. Brenna), available from Ginn and Company.

- (xiv) Other sources of information include:-

(i) **The Ontario Forestry Association**,
150 Consumers Road,
Willowdale, Ontario N2J 1P8

(ii) **The Ontario Forest Information Service**,
185 Bay Street,
Toronto, Ontario M5J 1J6

(iii) **The Ontario Federation of Anglers & Hunters**,
Box 1269,
Campbellford, Ontario K0L 1L0.

(iv) **Canadian Nature Federation**,
46 Elgin Street,
Ottawa, Ontario K1P 5K6

(v) **Canadian Association in support of the Native Peoples**,
16 Spadina Road, Suite 207,
Toronto, Ontario M5R 2S7.

(vi) **The National Library**,
Ottawa, Ontario K1A 0N4.

(vii) **National Museum of Canada**,
Ottawa, Ontario.

(viii) **Royal Ontario Museum,**
100 Queens Park,
Toronto, Ontario M5S 2C6.

III Selected American Sources:

Useful sources of information in the United States - Material on Education Outdoors includes -

A. The Better Environment booklets available from **The Soil Conservation Society of America**, 7515 North East Ankeny Road, Ankeny, Iowa 50021, which include the following titles: Food and the land, Sharing the Earth, Plants - How They Improve our Environment, The Story of Land, Working Together for a Livable Land, Help Keep Our Land Beautiful, Wildlife on the Land, The Wonder of Water, and The Earth Our Home in Space.

Also available from **The Soil Conservation Society** is a booklet called - Water.

These booklets may also be ordered in care of: The Ontario Forestry Association, 150 Consumers Road, Willowdale, Ontario N2J 1P8.

B. The Corporation of Engineers produces useful booklets and pamphlets, such as: Help yourself (a discussion of the critical erosion problems on the Great Lakes, and alternative methods for shore protection); available from:

The Corporation of Engineers, North Central Division, 536 South Clark Street, Chicago, Illinois, 60605.

The Wildlife Management Institute produces pamphlets and booklets, such as: The Rise, Fall and Future of the Ring-Neck Pheasant, available from:

The Wildlife Management Institute,
Washington, D.C. 20005.

The main source of information in the United States, however, is through:-

The Superintendent of Documents, U.S. Government Printing Office, Washington, 25, D.C.

IV A Selective General Bibliography

(i) The following selective bibliography has been prepared for your further consideration:

"A study of Outdoor Education and its relationship to use and management of Natural Resources in Ontario".
(Report prepared for the Ontario Ministry of Natural Resources).

Ontario Forestry Association, 1972. 188 p., Appendices.

A Guide to Ohio Outdoor Education Areas

Melvin, Ruth W. Columbus, Ohio: Department of Natural Resources, 1970.

(Prepared for the State of Ohio Department of Natural Resources and the Ohio Academy of Science) 143 p.

Natural Interpretation and Outdoor Education

Handbook for Park Naturalists, Camp Counsellors, Leaders of Youth Groups and Others who conduct Outdoor Programs in the Woods and Natural Areas. Columbus, Ohio: Columbus Metro Park Board, 1969.

Interpreting our Heritage

Tilden, Freeman.

Chapel Hill, N.C.: The University of North Carolina Press, 1967 (Rev. Ed.) 120 p.

Nature Interpretation Handbook

Columbus, Ohio: Columbus Metro Park Board, 1966.

The Environmental School: a guide for teachers and park personnel.

Meneaini, Mario M.

Orinda, Calif.: Educational Consulting Service, 1970. 106 p.

Outdoor Environmental Education in Canada; a preliminary study

Scott, S. and Nelson, J.G.

Toronto: National and Provincial Parks Association of Canada, 1973, London, Middlesex, Elgin.

Introducing Environmental Learning on Wildlife Refuges

Report to Managers.

Golden Valley, Minn.: Environmental Science Center of the Minnesota Environmental Sciences Foundation, Inc. 1972.

Forestry Lessons

Ottawa: Department of Fisheries and Forestry, 1969 42 p.

Forestry lessons

Ottawa: Department of Forestry, 1963 73 p.

Ten Lessons in Forestry

New Orleans. LA: The Southern Pine Association, 1964 54 p.

Woodland Conservation for Teachers

Milwaukee, Wisc: Department of Agriculture, 1955 124 p.

"Reports from Elementary and Secondary Schools"

London, Ontario. The Middlesex County Board of Education 1971.

The Leslie M. Frost Resources Centre: a multiple-use teaching and demonstration natural resource area".

Toronto: Ministry of Natural Resources, 1972 11 p.

Appendices.

Federal Focal Point in Outdoor Recreation

Washington, D.C.: Department of the Interior, Bureau of Outdoor Recreation, 1962 75 p.

Tips and Tricks in Outdoor Education; approaches to providing children with educational experiences in the out-of-doors.

Danville, Ohio: Interstate Printers & Publishers, Inc. 1970 184 p.

“Woodstock Outdoor Education Programme”

(Elementary Level) Woodstock, Ontario: Board of Education, 1974 204 p.

Outdoor Education Equipment; plans for easy-to-make items

Danville, Ohio: The Interstate Printers & Publishers, Inc. 1974 204 p.

White Bear Outdoor Skills Laboratory,

London, Ontario: Fanshawe College 1970.

St Johns Outdoor Studies Centre Programme.

Fonthill, Ontario: Niagara South Board of Education.

Rogers Conservation Education Center

Self-Guiding Outlines.

Experience Area 1 - Live Demonstration

Experience Area 2 - Trails & Highlights

Experience Area 3 - Interpretive Bldg.

Experience Area 4 - Farm Demonstration unit.

New York State Department of Environmental Conservation.

Overnight Visitation, Rogers Environmental Education

Center at Shelburne, N.Y.

New York State Department of Environmental Conservation, 20 p.

Manual of Outdoor Conservation Education

New York, N.Y.: National Audubon Society, Nature Centres Division, 1964 96 p. (Information-Education Bulletin No. 3)

A Nature Center for Your Community

New York, N.Y.: National Audubon Society, 1962 87 p.

(Information-Education Bulletin No. 1).

“Ontario Ministry of Natural Resources Preliminary Statement on the Ministry’s Program of Environmental and Outdoor Education”

(Paper delivered by Q.F. Hess to the Interministerial Environmental Education Committee, July 24, 1974) 42 p., attachments.

Resources for Education Outdoors

Toronto: Ministry of Natural Resources and Ministry of Education, 1975 29 p. maps (looseleaf).

“Peché Island Resident Study, 1975”

Windsor, Ontario: Board of Education. 1975

Planning Areas and Facilities for Health, Physical Education and Recreation

Chicago, Ill. and Washington, D.C.: The Athletic Institute and American Association for Health, Physical Education and Recreation, 1966 272 p.

“Claremont Seminar on Conservation Education”

sponsored by Conservation Branch, Department of Energy & Resources Management, and Metro Toronto and Region Conservation Authority, Nov. 20-22, 1970 120 p.

(ii) The following are special documents of particular

value, listed by Conservation Authorities from which they are available:

(a) Catfish Creek Conservation Authority, Aylmer, Ontario. Spring Water Conservation Area (pamphlet). Spring Water Forest Trail (booklet).

(b) The Kettle Creek Conservation Authority, 360 Talbot Street, St. Thomas, Ontario. Telephone (519) 631-1270.

Annual Report 1974 - This outdoor Education Manual for Kettle Creek Conservation Authority Properties covers the Patterson Buck Conservation Area, Belmont Conservation Area, Port Stanley Conservation Area, and Union Pond Conservation Area. Also it lists fowl, common to southwestern Ontario, and contains a glossary of activities, suggested movies, and a bibliography.

(c) The Lower Thames Valley Conservation Authority, 41 Fourth Street, Chatham, Ontario N7M 2G3. Guide to the Lower Thames Valley, Conservation Authority, (pamphlet).

(d) The Long Point Region Conservation Authority, Box 525, Simcoe, Ontario N3Y 4N5. (i) Inventory & Guide to Outdoor Education Sites, 1973 by C.W. Blyth and G.C. Burbridge. (ii) Known mill sites map, based on 1955 survey and early documents. (iii) Long Point Region, Conservation Authority Guide. (iv) Report on Municipal drain survey of the Big Creek Watershed north of Lyndoch by Barr & Joyce, 1973.

The Library of the southwest regional office of the Ministry of Natural Resources, at 1106 Dearness Drive, London, Ontario, prepares a monthly resource bulletin which may be used by a teacher, upon request, for research and study. The librarian may be contacted at (519) 681-5350.

NOTES

NOTES



primary objective is the wise management of renewable natural resources. The major focus of this objective and a wide range of projects has been cropland, wetlands, forest lands and valley lands, as well as wells, dams and weirs. In addition authorities contribute to the use of certain flood-prone and hazard lands.

Other projects in the area of resource management. Many have been undertaken for the education and enjoyment of the public. These have led authorities into a program of developing recreational facilities for enjoyment by the public. For example, the development of recreational facilities for enjoyment by the public. For



Conservation Authorities (Branch Ministry of Natural Resources)
Box 3541, Whiskey Dock, Queen's Park, Toronto, Ontario M5S 1B3 -
Telephone (416) 393-5282

3 1761 11548329 9

